

**WASHINGTON STATE DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE
4601 NORTH MONROE
SPOKANE, WASHINGTON 99205-1295**

IN THE MATTER OF THE COMPLIANCE BY)
WASHINGTON STATE UNIVERSITY)
LOCATED IN PULLMAN, WASHINGTON)
with Section 70.94.161 RCW, Operating Permits for)
Air Contaminant Sources, and the applicable rules and)
regulations of the Department of Ecology)
AIR OPERATING PERMIT
No. 02AQER-4553
FINAL PERMIT
2nd Revision

To: Washington State University
P.O. Box 641045
Pullman, Washington 99164

Issuance Date: June 9, 2004
Effective Date: June 9, 2004
Expiration Date: August 1, 2007

Responsible Official: Mr. Greg Royer, Vice President of Business Affairs

Legal Authority: This Air Operating Permit is issued under the authority and provisions of the Federal Clean Air Act (FCAA), (42 U.S.C. 7401, et seq.), the Washington Clean Air Act, Chapter 70.94 Revised Code of Washington (RCW) and the Operating Permit Regulation, Chapter 173-401 Washington Administrative Code (WAC).

Hereinafter, Washington State University is called the permittee. The permittee is required to comply with the provisions contained within this permit.

The Renewal Air Operating Permit, DATED at Spokane, Washington, the 25th day of July, 2002. The First Revision, DATED at Spokane, Washington, the 5th day of March, 2003. This Second Revision, DATED at Spokane, Washington, this 9th day of June, 2004.

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LIST OF ABBREVIATIONS

AOP	Air Operating Permit
ASIL	Acceptable Source Impact Level
BACT	Best Available Control Technology
BTU	British Thermal Units
°C	Degrees Celsius
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
dscf/m	Dry Standard Cubic Foot per minute
Ecology	Washington State Department of Ecology
E.I.T.	Engineer in Training
EPA	United States Environmental Protection Agency
°F	Degrees Fahrenheit
FCAA	Federal Clean Air Act
ft ³	Cubic foot
gr/dscf	Grain(s) per dry standard cubic foot
HMIWI	Hospital-Medical-Infectious Waste Incinerator
hr	Hour
HVAC	Heating, Ventilation, Air Conditioning
MMBTU	Million British Thermal Units
MRRR	Monitoring, Recordkeeping, and Reporting Requirement
MVAC	Motor Vehicle Air Conditioner
N ₂	Nitrogen gas
NOC	Notice of Construction
NO _x	Oxides of Nitrogen
NSPS	New Source Performance Standard
O ₂	Oxygen
O&M	Operation & Maintenance
P.E.	Professional Engineer
PM	Particulate Matter
PM-10	Particulate Matter with aerodynamic diameter ≤ 10 micrometers
ppm	Parts per million
QIP	Quality Improvement Plan
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RCW	Revised Code of Washington
RICE	Reciprocating Internal Combustion Engine
RM	EPA Reference Method from 40 CFR Part 60, Appendix A
scfm	Standard Cubic Feet per Minute
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
T	Temperature
TAP	Toxic Air Pollutant
TPY	Tons Per Year
VOC	Volatile Organic Compound
WAC	Washington Administrative Code
w%	Percentage by Weight
yr	Year

All information required for submittal throughout this permit, is to be submitted to Ecology, EPA, or both as specified by the applicable requirement, at the following addresses:

Air Quality Program
Department of Ecology
4601 North Monroe
Spokane, Washington 99205-1295

U.S. EPA Region 10 Administrator
Air Permits MS: OAQ-108
1200 Sixth Avenue
Seattle, Washington 98101

1. STANDARD CONDITIONS

1.1 Permit Shield

1.1.1 Compliance with the terms and conditions of this permit shall be deemed compliance with those applicable requirements that are specifically included and identified in this permit as of the date of permit issuance.

1.1.2 The permit shield shall not apply to any insignificant emissions unit or activity designated under WAC 173-401-530.

[WAC 173-401-530(3), 09/16/02], [WAC 173-401-640(1), 09/16/02], [Order No. 03AQER-5744, Issued 09/12/03, Approval Condition 1.1]

1.2 Enforceability All terms and conditions of the permit are enforceable by the EPA and citizens unless specifically designated as state-only enforceable.

[WAC 173-401-625, 09/16/02]

1.3 Permit Fees The permittee shall pay fees as a condition of this permit in accordance with Ecology's fee schedule (see WAC 173-401-900(6)). Failure to pay fees in a timely fashion shall subject the permittee to civil and criminal penalties as prescribed in chapter 70.94 RCW. Ecology may revoke this operating permit if the permit fees are not paid, per WAC 173-401-930(3).

[WAC 173-401-620(2)(f), 930(3), 09/16/02], [RCW 70.94.162(1), 1/4/01 (S)], [Order No. DE 95AQ-E138, Issued 08/18/95, Approval Condition 7.12], [Order No. DE 98AQ-E124, Issued 08/07/98, Approval Condition 11.9], [Order No. 01AQER-3336, Issued 11/07/01, Approval Condition 8.9], [Order No. DE 95AQ-E148, Issued 09/27/95, Approval Condition 5.8], [Order No. 03AQER-5744, Issued 09/12/03, Approval Condition 8.10]

1.4 Permit Continuation This permit and all terms and conditions contained therein, including any permit shield provided under WAC 173-401-640, shall not expire until the renewal permit has been issued or denied if a timely and complete application has been submitted. An application shield granted pursuant to WAC 173-401-705(2) shall remain in effect until the renewal permit has been issued or denied if a timely and complete application has been submitted.

[WAC 173-401-620(2)(j), 09/16/02]

1.5 Property Rights This permit does not convey any property rights of any sort, or any exclusive privilege.

[WAC 173-401-620(2)(d), 09/16/02]

1.6 Inspection and Entry Upon presentation of credentials and other documents as may be required by law, the permittee shall allow Ecology, EPA, or an authorized representative to perform the following:

1.6.1 Enter upon the permittee's premises where a chapter 401 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

- 1.6.2** Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
- 1.6.3** Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
- 1.6.4** As authorized by WAC 173-400-105 and the FCAA, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.
 - 1.6.4.1** Ecology may require the permittee to conduct stack testing and/or ambient air monitoring and report the results to Ecology.
 - 1.6.4.2** Ecology may conduct or require that a test be conducted using approved methods from 40 CFR parts 51, 60, 61 and 63 (in effect on February 20, 2001), or Ecology's Source Test Manual – Procedures for Compliance Testing. The permittee shall be required to provide platform and sampling ports. Ecology shall be allowed to obtain a sample from any emissions unit. The permittee shall be given the opportunity to observe the sampling and to obtain a sample at the same time.
- 1.6.5** No person shall obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties.
- 1.6.6** Nothing in this condition shall limit the ability of EPA to inspect or enter the premises of the permittee under Section 114 or other provisions of the FCAA.

[WAC 173-401-630(2), 09/16/02], [WAC 173-400-105(2),(4), 8/20/93, 07/11/02 (S)], [RCW 70.94.200, 1/4/01 (S)], [Order No. DE 95AQ-E138, Issued 08/18/95, Approval Conditions 6.1, 7.7], [Order No. DE 98AQ-E124, Issued 08/07/98, Approval Condition 2.3, 11.3], [Order No. 01AQER-3336, Issued 11/07/01, Approval Conditions 2.3, 3, 8.3], [Order No. DE 95AQ-E148, Issued 09/27/95, Approval Conditions 4.1, 5.3], [40 CFR 60.8(e), 07/01/02], [Order No. 03AQER-5744, Issued 09/12/03, Approval Condition 8.3]

- 1.7 Duty to Comply** The permittee must comply with all conditions of this chapter 173-401 operating permit. Any permit noncompliance constitutes a violation of chapter 70.94 RCW and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

[WAC 173-401-620(2)(a), 09/16/02], [Order No. DE 95AQ-E138, Issued 08/18/95, Approval Condition 7.10], [Order No. DE 98AQ-E124, Issued 08/17/98, Approval Conditions 11.7, 11.8], [Order No. 01AQER-3336, Issued 11/07/01, Approval Conditions 8.7, 8.8], [Order No. DE 95AQ-E148, Issued 09/27/95, Approval Condition 5.6], [Order No. 03AQER-5744, Issued 09/12/03, Approval Condition 8.7, 8.8]

- 1.8 Duty to Provide Information** The permittee shall furnish to Ecology, within a reasonable time, any information that Ecology may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to Ecology copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to Ecology along with a claim of confidentiality. Ecology shall maintain confidentiality of such information in accordance with RCW 70.94.205.

No person shall make any false material statement, representation or certification in any form, notice or required report. No person shall render inaccurate any required monitoring device or method.

[WAC 173-401-620(2)(e), 09/16/02], [WAC 173-400-105(7), (8), 8/20/93, 07/11/02 (S)]

- 1.9 Duty to Supplement or Correct Application** The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

[WAC 173-401-500(6), 09/16/02]

- 1.10 Need to Halt or Reduce Activity not a Defense** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

[WAC 173-401-620(2)(b), 09/16/02]

- 1.11 Excess Emissions Due to an Emergency** The permittee may seek to establish that noncompliance with a technology-based¹ emission limitation under this permit was due to an emergency.² To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

- 1.11.1** An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- 1.11.2** The permitted facility was being properly operated at the time of the emergency;
- 1.11.3** During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit, and
- 1.11.4** The permittee submitted notice of the emergency to Ecology within two (2) working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[WAC 173-401-645, 09/16/02]

- 1.12 Unavoidable Excess Emissions** Excess emissions determined to be unavoidable under the procedures and criteria in WAC 173-400-107 shall be excused and not subject to penalty.

- 1.12.1** The permittee shall have the burden of proving to Ecology that excess emissions were unavoidable. This demonstration shall be a condition to obtaining relief under 1.12.2, 1.12.3, or 1.12.4.
- 1.12.2** Excess emissions due to startup or shutdown conditions shall be considered unavoidable provided the source reports excess emissions as required under Standard Condition 1.13.1 and adequately demonstrates that the excess emissions could not have been prevented through careful planning and design and if a bypass of control equipment occurs, that such bypass is necessary to prevent loss of life, personal injury, or severe property damage.

¹ Technology-based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain a health based air quality standard.

² An "emergency" means any situation arising from sudden and reasonably enforceable events beyond the control of this source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes this source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- 1.12.3** Excess emissions due to scheduled maintenance shall be considered unavoidable if the source reports as required under Standard Condition 1.13.1 and adequately demonstrates that the excess emissions could not have been avoided through reasonable design, better scheduling for maintenance or through better operation and maintenance practices.
- 1.12.4** Excess emissions due to upsets shall be considered unavoidable provided the source reports as required under Standard Condition 1.13.1 and adequately demonstrates that:
- 1.12.4.1** The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition.
 - 1.12.4.2** The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance.
 - 1.12.4.3** The operator took immediate and appropriate corrective action in a manner consistent with good air pollution control practice for minimizing emissions during the event, taking into account the total emissions impact of the corrective action, including slowing or shutting down the emission unit as necessary to minimize emissions, when the operator knew or should have known that an emission standard or permit condition was being exceeded.

[WAC 173-400-107(3), 8/20/93, 07/11/02 (S)], [WAC 173-400-107, 8/20/93, 07/11/02 (S)]

1.13 Reporting

- 1.13.1 Monthly Deviation Reports** The permittee shall report deviations from permit conditions, including those attributable to upset conditions as defined in this permit, and include the following information: the time the deviation occurred, the duration of the deviation, the magnitude of the deviation in relation to the applicable limit, the probable cause of the deviation, and any corrective actions or preventive measures taken. Such deviations shall be reported “promptly” to Ecology at the address included in this permit.

For deviations which represent a potential threat to human health or safety (per WAC 173-401-300(5)), or which the source believes to be unavoidable, “promptly” means as soon as possible, but in no case later than twelve (12) hours after the deviation is discovered. Other deviations shall be reported no later than thirty days after the end of the month during which the deviation is discovered. Upon request by Ecology, the permittee shall submit a full written report including further details regarding the known causes, the corrective actions taken, and the preventative measures to be taken to minimize or eliminate the chance of recurrence. For any month during which no permit deviations are discovered, the permittee shall submit a report no later than thirty (30) days following the end of the month informing Ecology that no deviations were observed during that period. The source shall maintain a contemporaneous record of all deviations. Responsible official certification in accordance with Condition 1.13.5 of monthly deviation reports shall be included in each semi-annual monitoring report covering all deviation reports made during the previous six month period.

[WAC 173-401-615(3)(b), 09/16/02], [WAC 173-400-107, 8/20/93, 07/11/02 (S)], [WAC 173-401-630(1), 07/11/02]

- 1.13.2 Semi-Annual Monitoring Reports** The permittee shall submit semi-annual reports which include monitoring, recordkeeping, and/or reporting information required to be reported under Section 3 of this permit unless stated otherwise in a specific MRRR. Six-month periods shall be twice each calendar year from January 1st through June 30th, and from July 1st through December 31st. Semi-annual monitoring reports shall be due no later than ninety (90) days following the end of each six (6) month period. The initial monitoring report submitted under this Second Revision to the AOP

shall cover the period between the latest report submitted and either June 30th or December 31st. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with Condition 1.13.5.

[WAC 173-401-615(3)(a), 09/16/02]

1.13.3 Compliance Certifications The permittee shall submit a certification of compliance with permit terms and conditions at least once per calendar year. All certifications shall be submitted no later than ninety (90) days following the end of the certification period. The first certification submitted under this Second Revision shall be submitted for the period of time between the latest certification submitted and the end of the calendar year. Ecology may require that compliance certifications be submitted more frequently for those emission units not in compliance with permit terms and conditions, or where more frequent certification is specified in the applicable requirement.

[WAC 173-401-630(5)(a), 09/16/02], [WAC 173-401-630(1), 09/16/02]

1.13.3.1 The certification shall describe and include the following:

1.13.3.1.1 The permit term or condition that is the basis of the certification.

1.13.3.1.2 The current compliance status.

1.13.3.1.3 Whether compliance was continuous or intermittent.

1.13.3.1.4 The methods used for determining compliance, currently and over the reporting period consistent with WAC 173-401-615(3)(a).

1.13.3.1.5 Such other facts as the authority may require to determine the compliance status of the source.

[WAC 173-401-630(5)(c), 09/16/02]

1.13.3.2 All compliance certifications shall be submitted to Ecology and EPA Region 10 at the respective addresses included in this permit.

[WAC 173-401-630(5)(d), 09/16/02]

1.13.3.3 The permittee need not certify compliance for insignificant emission units or activities.

[WAC 173-401-530(2)(d), 09/16/02]

1.13.3.4 All compliance certifications shall include certification by a responsible official in accordance with Condition 1.13.5.

1.13.3.5 For the purpose of submitting compliance certifications, or establishing whether or not a person has violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed.

[40 CFR 52.33(a), 07/01/02], [40 CFR 60.11(g), 07/01/02]

1.13.4 Emission Inventory The permittee shall submit an inventory of actual emissions from the source for each calendar year. The inventory shall include segmented stack and fugitive emissions of TSP, PM-10, SO₂, CO, NO_x, lead, and VOC's, and shall be submitted no later than **April 15th** of the following year. The source shall maintain records of information necessary to substantiate any reported emissions, consistent with the averaging times for the applicable standards. Emissions inventories shall be sent to Ecology at the address included in this permit.

[WAC 173-400-105(1), 8/20/93, 07/11/02 (S)], [Order No. 03AQER-5744, Issued 09/12/03, Approval Condition 7.4]

1.13.5 Submittals Reports, test data, monitoring data, notifications, certifications, and applications (including requests for renewal) shall be submitted to Ecology at the address included in this permit. Any document submitted to Ecology pursuant to this permit shall contain certification of truth, accuracy, and completeness by a responsible official. All certifications shall state that *“based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete”*. The permittee shall promptly, upon discovery, report to Ecology any material error or omission in these records, reports, plans or other documents.

[WAC 173-401-520, 09/16/02], [WAC 173-401-500(6), 09/16/02], [40 CFR 60.4(a), (b), 07/01/02], [Order No. 03AQER-5744, Issued 09/12/03, Approval Condition 7.2]

1.14 Severability If any provision of this permit, or application of any provision of this permit, is held to be invalid, all unaffected provisions of the permit shall remain in effect and be enforceable.

[WAC 173-401-620(2)(h), 09/16/02], [RCW 70.94.905, 1/4/01 (S)]

1.15 Administrative Permit Amendments

1.15.1 An administrative permit amendment is a permit revision that:

1.15.1.1 Allows for a change in ownership or operational control of this source where the permitting authority has determined that no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to Ecology,

1.15.1.2 Corrects typographical errors within the permit,

1.15.1.3 Identifies a change in the name, address, or phone number of any person identified in the permit, or provides for a similar minor administrative change at the source,

1.15.1.4 Requires more frequent monitoring or reporting by the permittee, or

1.15.1.5 Incorporates into the permit the terms, conditions, and provisions from orders approving notice of construction applications processed under an EPA-approved program, provide that such a program meets procedural requirements substantially equivalent to the requirements of WAC 173-401-700, 173-401-725, and 173-401-800 that would be applicable to the change if it were subject to review as a permit modification, and compliance requirements substantially equivalent to those contained in WAC 173-401-600 through 173-401-650.

1.15.2 The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

1.15.3 The permitting authority shall, upon taking final action granting a request for an administrative permit amendment, allow coverage by the permit shield in WAC 173-401-640 for administrative permit amendments made pursuant to condition 1.15.1.5 above.

[WAC 173-401-720, 09/16/02]

1.16 Permit Actions This operating permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[WAC 173-401-620(2)(c), 09/16/02]

1.17 Reopening for Cause

1.17.1 Ecology will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

1.17.1.1 Additional requirements under the FCAA become applicable to a major source three (3) or more years prior to the expiration date of this permit. Such a reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620(2)(j).

1.17.1.2 Ecology or the Administrator determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

1.17.1.3 Ecology or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

1.17.2 Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

1.17.3 Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by Ecology at least 30 days in advance of the date that this permit is to be reopened, except that Ecology may provide a shorter time period in the case of an emergency.

1.17.4 All permit conditions remain in effect until such time as Ecology takes final action.

[WAC 173-401-730, 09/16/02]

1.18 Off-Permit Changes The permittee is allowed to make certain changes that are not specifically addressed or prohibited by this permit without a permit revision. All such changes must meet the following conditions:

1.18.1 The proposed changes shall not weaken the enforceability of any existing permit conditions.

1.18.2 Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.

1.18.3 Before or contemporaneously with making the permit change, the permittee must provide written notice to Ecology and EPA Region 10 at the respective addresses included in this permit. Such written notice shall describe each such change, including the date, any change in emissions or pollutants emitted, and any applicable requirements that would apply as a result of the change.

1.18.4 The change shall not qualify for the permit shield under Standard Condition 1.1.

1.18.5 The permittee shall record all changes that result in emissions of any regulated air pollutant subject to any applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes. The record shall reside at the permitted facility.

1.18.6 A source making a change under this section shall comply with the preconstruction review requirements established pursuant to Standard Condition 1.20.

[WAC 173-401-724, 09/16/02]

1.19 Changes not Requiring Permit Revisions

1.19.1 *Section 502(b)(10) changes.* The permittee is authorized to make section 502(b)(10) changes, as defined in WAC 173-401-200(28), without a permit revision, providing the conditions included below are met. The permit shield as described in Standard Condition 1.1 shall not apply to any change made pursuant to this paragraph.

1.19.1.1 The proposed changes are not Title I (FCAA) modifications;

1.19.1.2 The proposed changes do not result in emissions which exceed those allowable under the permit, whether expressed as a rate of emissions, or in total emissions;

1.19.1.3 The proposed changes do not alter permit terms that are necessary to enforce limitation on emissions from units covered by the permit;

1.19.1.4 The facility provides Ecology and EPA with written notification at least seven days prior to making the proposed changes except that written notification of a change made in response to an emergency shall be provided as soon as possible after the event;

1.19.1.4.1 The written notification shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

1.19.2 *Changes related to Emissions trading under an emissions cap.* Pursuant to Standard Condition 1.19.1, the permittee is authorized to trade increases and decreases in emission in the permitted facility, where the Washington state implementation plan provides for such emissions trades without requiring a permit revision. This provision is available in those cases where the permit does not already provide for such emissions trading. Such changes shall be subject to the following:

1.19.2.1 The written notification required under Standard Condition 1.19.1.4 shall include such information as may be required by the provision in the Washington SIP authorizing the emissions trade, including at a minimum, when the proposed change will occur, a description of each such change, any change in emissions, the permit requirements with which the source will comply using the emissions trading provisions of the Washington SIP, and the pollutants emitted subject to the emissions trade. The notice shall also refer to the provisions with which the source will comply in the applicable implementation plan and that provide for the emissions trade. The notification shall state how any increases or decreases in emissions will comply with the terms and conditions of the permit. (The permit shield described under Standard Condition 1.1 shall extend to terms and conditions that allow such increases and decreases.)

1.19.2.2 The permit shield described in Standard Condition 1.1 shall not extend to any change made under this paragraph. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the applicable implementation plan authorizing the emissions trade.

1.19.2.3 Upon the request of the permit applicant, Ecology shall issue permits that contain terms and conditions, including all terms required under WAC 173-401-600 through 173-401-630 to determine compliance, allowing for the trading of emissions increases and decreases in the chapter 173-401 WAC source solely for the purpose of complying with a federally enforceable emissions cap that is established in the permit independent of otherwise applicable requirements. The permit applicant shall include

in its application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The emissions trading provision shall not be applied to any emissions units for which emission are not quantifiable or for which there are no replicable procedures to enforce the emissions trades. The permit shall also require compliance with all applicable requirements.

1.19.2.4 A source making a change under this section shall comply with applicable preconstruction review requirements established pursuant to Standard Condition 1.20.

1.19.2.5 No permit revision shall be required, under any approved economic incentives, marketable permits, and other similar programs or processes for changes that are provided for in this permit such as emissions trading.

[WAC 173-401-722, 09/16/02], [WAC 173-401-620(2)(g), 09/16/02]

1.20 New Source Review The permittee shall not construct new sources or make modifications required to be reviewed under WAC 173-400-110, WAC 173-400-113, WAC 173-400-141, or WAC 173-460 before the permittee obtains written final approval from Ecology in accordance with those regulations, pays the appropriate fees required by WAC 173-400-116, and pays the cost of public notice described in WAC 173-400-171.

[WAC 173-400-110, 8/20/93, 07/11/02 (S)], [WAC 173-400-113, 8/20/93, 07/11/02 (S)], [WAC 173-400-116, 07/11/02 (S)], [WAC 173-400-141, 07/11/02 (S)], [WAC 173-400-171, 8/20/93, 07/11/02 (S)], [WAC 173-460, 7/21/98 (S)], [RCW 70.94.152, 1/4/01 (S)]

1.21 Replacement or Substantial Alteration of Emission Control Technology. Prior to replacing or substantially altering emission control technology subject to review under WAC 173-400-114, the permittee shall file for and obtain approval from Ecology according to that regulation. The permittee shall pay the appropriate fees required by WAC 173-400-045(4) prior to commencing construction.

[WAC 173-400-045(4), 114 07/11/02 (S)], [RCW 70.94.153, 1/4/01 (S)]

1.22 Operational Flexibility

1.22.1 In the event that an emission unit is not operated during a period equal to or greater than the monitoring period designated, no monitoring is required. Recordkeeping and reporting must note the reason why and length of time that the emission unit was not operated.

1.22.2 The permittee did not propose any further alternative operating scenarios.

[WAC 173-401-650, 09/16/02]

1.23 Permit Appeals This permit or any conditions in it may be appealed only by filing an appeal with the Pollution Control Hearings Board, P.O. Box 40903, Olympia, WA 98504-0903 and concurrently serving it on the Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600 and the Department of Ecology, Regional Air Quality Section, 4601 North Monroe, Spokane, WA 99205-1295 within thirty days of receipt of this permit, pursuant to RCW 43.21B.310. This provision for appeal in this section is separate from and additional to any federal rights to petition and review under § 505(b) of the FCAA.

[WAC 173-401-620(2)(i), 09/16/02]

1.24 Federal Chlorofluorocarbons (CFC) Requirements – Title VI of the FCAA & Federal Requirements Applying to Halon Fire Suppression Systems

1.24.1 Federal CFC Requirements

- 1.24.1.1** The permittee shall comply with the following standards for recycling and emissions reductions pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in subpart B.
 - 1.24.1.1.1** Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156.
 - 1.24.1.1.2** Equipment used during the maintenance, service, repair or disposal must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
 - 1.24.1.1.3** Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - 1.24.1.1.4** Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" is defined at 40 CFR 82.152.)
 - 1.24.1.1.5** Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - 1.24.1.1.6** Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep servicing records documenting the date and type of service, as well as the quantity of refrigerant added. The owner/operator must keep records of refrigerant purchased and added to such appliances in cases where owners add their own refrigerant. Such records should indicate the date(s) when refrigerant is added pursuant to 40 CFR 82.166.
 - 1.24.1.1.7** Persons conducting maintenance, service, repair, or disposal of appliances must follow the prohibitions pursuant to 40 CFR 82.154.
 - 1.24.1.1.8** Person performing maintenance, service, repair, or disposal of appliances must certify to the Administrator that such person has acquired certified recovery of recycling equipment pursuant to 40 CFR 82.162.
- 1.24.1.2** If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR 82, Subpart A – Production and Consumption Controls.
- 1.24.1.3** If the permittee performs a service on monitor (fleet) vehicles and when this service involves ozone depleting substance refrigerant in the MVAC, the permittee is subject to all applicable requirements as specified in 40 CFR 82, Subpart B – Servicing of Motor Vehicle Air Conditioners.
- 1.24.1.4** The permittee shall be allowed to switch from any ozone depleting substance to any alternative that is listed in the Significant New Alternative Program promulgated pursuant to 40 CFR 82, Subpart G – Significant New Alternative Policy Program.
- 1.24.2** Federal Requirements Applying to Halon Fire Suppression Systems
 - 1.24.2.1** Effective April 6, 1998, no person testing, maintaining, servicing, repairing, or disposing of halon-containing equipment or using such equipment for technician training may knowingly vent or otherwise release into the environment any halons used in such equipment.

- 1.24.2.1.1** De minimis releases associated with good faith attempts to recycle or recover halon are not subject to this prohibition.
- 1.24.2.1.2** Release of residual halon contained in fully discharged total flooding fire extinguishing systems would be considered a *de minimis* release associated with good faith attempts to recycle or recover halon.
- 1.24.2.1.3** Release of halons during testing of fire extinguishing systems is not subject to this prohibition if the following four conditions are met:
 - 1.24.2.1.3.1** Systems or equipment employing suitable alternative fire extinguishing agents are not available,
 - 1.24.2.1.3.2** System or equipment testing requiring release of extinguishing agent is essential to demonstrate system or equipment functionality,
 - 1.24.2.1.3.3** Failure of the system or equipment would pose great risk to human safety or the environment; and
 - 1.24.2.1.3.4** A simulant agent cannot be used in place of the halon during system or equipment testing for technical reasons.
- 1.24.2.1.4** Releases of halons associated with research and development of halon alternatives, and releases of halons necessary during analytical determination of halon purity using established laboratory practices are exempt from this prohibition.
- 1.24.2.1.5** This prohibition does not apply to qualification and development testing during the design and development process of halon-containing systems or equipment when such tests are essential to demonstrate system or equipment functionality and when a suitable simulant agent can not be used in place of the halon for technical reasons.
- 1.24.2.1.6** This prohibition does not apply to the emergency release of halons for the legitimate purpose of fire extinguishing, explosion inertion, or other emergency applications for which the equipment or systems were designed.
- 1.24.2.2** Effective April 6, 1998, organizations that employ technicians who test, maintain, service, repair or dispose of halon-containing equipment shall take appropriate steps to ensure that technicians hired on or before April 6, 1998 will be trained regarding halon emissions reduction by September 1, 1998. Technicians hired after April 6, 1998 shall be trained regarding halon emissions reduction within 30 days of hiring, or by September 1, 1998, whichever is later.
- 1.24.2.3** Effective April 6, 1998, no person shall dispose of halon-containing equipment except by sending it for halon recovery to a manufacturer operating in accordance with NFPA 10 and NFPA 12A standards, a fire equipment dealer operating in accordance with NFPA 10 and NFPA 12A standards or a recycler operating in accordance with NFPA 10 and NFPA 12A standards. This provision does not apply to ancillary system devices such as electrical detection control components which are not necessary to the safe and secure containment of the halon within the equipment, to fully discharged total flooding systems, or to equipment containing only de minimis quantities of halons.

1.24.2.4 Effective April 6, 1998, no person shall dispose of halon except by sending it for recycling to a recycler operating in accordance with NFPA 10 and NFPA 12A standards, or by arranging for its destruction using one of the following controlled processes:

1.24.2.4.1 Liquid injection incineration,

1.24.2.4.2 Reactor cracking,

1.24.2.4.3 Gaseous/fume oxidation,

1.24.2.4.4 Rotary kiln incineration,

1.24.2.4.5 Cement kiln,

1.24.2.4.6 Radiofrequency plasma destruction; or

1.24.2.4.7 An EPA-approved destruction technology that achieves a destruction efficiency of 98% or greater.

1.24.2.5 Effective April 6, 1998, no owner of halon-containing equipment shall allow halon release to occur as a result of failure to maintain such equipment.

[40 CFR 82, 07/01/02], [RCW 70.94.970, 1/4/01 (S)], [RCW 70.94.980, 1/4/01 (S)]

1.25 Reasonably Available Control Technology (RACT) Emission standards and other requirements contained in rules or regulatory orders in effect at the time of operating permit issuance or renewal shall be considered RACT for the purpose of permit issuance or renewal. RACT determinations under section 8, chapter 252, Laws of 1993 shall be incorporated into an operating permit as provided in WAC 173-401-730.

[WAC 173-401-605(3), 09/16/02], [RCW 70.94.154, 1/4/01 (S)]

1.26 Compliance Schedules

1.26.1 The permittee shall continue to comply with applicable requirements with which it is currently in compliance. The permittee shall meet applicable requirements on a timely basis that become effective during the permit term.

[WAC 173-401-510(2)(h)(iii)(A), 09/16/02], [WAC 173-401-510(2)(h)(iii)(B), 09/16/02]

1.27 Record Keeping

1.27.1 The permittee shall keep records of required monitoring information that includes, where applicable, the following:

1.27.1.1 The date, place, and time of the sampling or measurements.

1.27.1.2 The date(s) analyses were performed.

1.27.1.3 The company or entity that performed the analysis.

1.27.1.4 The analytical techniques or methods used.

1.27.1.5 The results of such analyses.

1.27.1.6 The operating conditions as existing at the time of sampling or measurement.

[WAC 173-401-615(2)(a), 09/16/02]

1.27.2 The permittee shall keep records describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

[WAC 173-401-615(2)(b), 09/16/02]

- 1.27.3** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings from continuous monitoring instrumentation, and copies of all reports required by this permit.

[WAC 173-401-615(2)(c), 09/16/02]

- 1.27.4** All required recordkeeping shall be available to Ecology in accordance with Standard Condition 1.6.

[WAC 173-401-630(2)(b), 09/16/02], [40 CFR 60.7(b), 60.7(f), 07/01/02]

1.28 General Obligation Nothing in this permit shall alter or affect the following:

- 1.28.1** The provisions of section 303 of the FCAA (emergency orders), including the authority of EPA under that section.
- 1.28.2** The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.
- 1.28.3** The applicable requirements of the acid rain program, consistent with section 408(a) of the FCAA.
- 1.28.4** The ability of EPA to obtain information from a source pursuant to section 114 of the FCAA.
- 1.28.5** The ability of Ecology to establish or revise requirements for the use of reasonably available control technology (RACT) as provided in chapter 252, Laws of 1993.

[WAC 173-401-640(4), 09/16/02]

- 1.29 Permit Renewal and Expiration** This permit is issued for a fixed term of 5 years. The permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application (as outlined in WAC 173-401-510) is submitted at least 12 months, but no greater than 18 months prior to the date of permit expiration. *A complete renewal application is due no later than August 1, 2006.* Upon receipt of a timely and complete application for renewal, this source may continue to operate subject to final action by Ecology on the renewal application. This allowance shall cease to apply if, subsequent to a completeness determination, the applicant fails to submit by the deadline specified in writing by Ecology, any additional information identified as being needed to process the application. The application shall be sent to Ecology at the address included in this permit.

[WAC 173-401-610; 173-401-710, 09/16/02]

- 1.30 Demolition and Renovation (asbestos)** Prior to, during and after conducting any activity to which 40 CFR 61, Subpart M – National Emission Standard for Asbestos, applies, the permittee shall comply with the requirements of that rule. Such activities include notification, demolition, renovation, asbestos stripping or removal, installing or reinstalling insulation, manufacturing or fabricating certain items, spraying of certain materials, constructing roadways of certain materials, or disposal.

[40 CFR 61, Subpart M, 07/01/02], [WAC 173-400-075(1), 07/11/02 (S)]

2. APPLICABLE REQUIREMENTS

Until this permit expires, is modified or revoked, this permittee is authorized to operate the processes outlined in Sections 2.1 through 2.13. These processes are subject to the conditions included in Sections 2.1, through 2.13, to the MRRR's listed in Section 3. Monitoring, Recordkeeping, and Reporting Requirements, and to other terms and conditions specified in this permit.

The column entitled **Description** in each table contains only a summary/paraphrase of the condition, emission standard or work practice. The condition, emission standard, or work practice itself is the enforceable requirement and should be referenced for actual language.

Testing Requirements

Although there are many conditions with no on-going testing requirements, Ecology retains the authority to conduct or require that testing be conducted at the facility with respect to these conditions per WAC 173-400-105(4). Identification of the appropriate test method is necessary to make emission limits fully enforceable. Where the underlying applicable requirement does not specify the test method, Ecology has done so in this permit.

[WAC 173-401-615(1)(a)], [WAC 173-401-630(1)], [WAC 173-400-105(4)]

2.1 Section #1, Facility Wide

This section is applicable and enforceable with respect to all significant emission units source wide, including those emission units in Sections 2.2 through 2.14. Monitoring, recordkeeping and reporting requirements in this section do not apply to insignificant emission units. Condition numbers that are denoted with an asterisk indicate that streamlining of a less stringent requirement has taken place and is described in section 12.0 of the Statement of Basis.

TABLE 2.1

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.1.1	WAC 173-400-040(1), (1)(a), and (1)(b) 8/20/93	F	Visible emissions shall not exceed 20% opacity for more than 3 minutes in any one hour	RM 9	4M
	WAC 173-400-040(1), (1)(a), and (1)(b) 07/11/02	S			
2.1.2	WAC 173-400-060 8/20/93	F	General process units are required to meet all applicable provisions of WAC 173-400-040 and emissions of particulate material from any operation shall not exceed 0.1 grain/dscf of exhaust gas	RM 5	4M
	WAC 173-400-060 07/11/02	S			

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.1.3	WAC 173-400-040(2) 07/11/02	S	Particulate matter shall not be deposited beyond the property in sufficient quantity to interfere unreasonably with the use and enjoyment of other's property	None	3M
2.1.4	WAC 173-400-040(3)(a), (8)(a) 8/20/93	F	The source shall perform maintenance to minimize emissions and take reasonable precautions to prevent fugitive dust from becoming airborne	RM 9 RM 22	3M
	WAC 173-400-040(3)(a), (8)(a) 07/11/02	S			
2.1.5	WAC 173-400-040(3)(a), (8)(a) 07/11/02	S	Fugitive dust control measures shall be taken to prevent fugitive emissions	RM 9 RM 22	5M
2.1.6	WAC 173-400-040(4) 07/11/02	S	Any producer of an odor which may unreasonably interfere with any other property owner's use and enjoyment of his property must reduce these odors to a reasonable minimum	None	3M
2.1.7	WAC 173-400-040(5) 8/20/93	F	No person shall cause or permit the emission of any air contaminant if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business	None	3M
	WAC 173-400-040(5) 07/11/02	S			
2.1.8	WAC 173-400-040(7) 8/20/93	F	No person shall conceal or mask an emission of an air contaminant	None	1M
	WAC 173-400-040(7) 07/11/02	F			
	40 CFR 60.12	F			
2.1.9	WAC 173-400-200(2) 8/20/93	F	No source may use dispersion techniques or excess stack height to meet ambient air quality standards or PSD increment limitations	None	1M
	WAC 173-400-200(2) 07/11/02	S			

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.1.10	WAC 173-400-205 8/20/93 ----- WAC 173-400-205 07/11/02	F ----- S	Varying the rate of emission of a pollutant according to atmospheric conditions is prohibited, except as directed according to air pollution episode regulations	None	1M
2.1.11	RCW 70.94.040 1/4/01	S	Causing air pollution in violation of Chapter 70.94 RCW is unlawful	None	1M
2.1.12	Order No. DE 95AQ-E148 Issued 9/27/95 Approval Condition 5.7 ----- Order No. DE 95AQ-E138 Issued 8/18/95 Approval Condition 7.11 ----- Order No. DE 98AQ-E124 Issued 8/7/98 Approval Condition 11.6 ----- Chapter 173-425 WAC – Restriction on Open Burning	F ----- F ----- F ----- F	Open Burning is subject to restrictions	None	2M
2.1.13	WAC 173-400-040, 1 st ¶ 8/20/93 ----- WAC 173-400-040, 1 st ¶ 07/11/02 (RCW 70.94.154(1))	F ----- S	All emissions units are required to use RACT	None	2M

2.2 Section #2, College Avenue Steam Plant Boiler #8 (Coal Fired)

TABLE 2.2

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.2.1	WAC 173-400-040(1) 8/20/93 ----- WAC 173-400-040(1) 07/11/02	F ----- S	Visible emissions shall not exceed 20% opacity for more than 3 minutes in any one hour	RM 9	10M
2.2.2	Order No. DE 79-421 First Amendment Approval Condition 3	F	Source will be limited to annual particulate emissions ≤ 50 TPY	RM 1,2,3,4,5 and Part 51, App. M Method 202 (back half)	8M
2.2.3	WAC 173-400-050(1), (3) 8/20/93 ----- WAC 173-400-050(1), (3) 07/11/02	F ----- S	Combustion and incineration units; emissions of particulate material shall not exceed 0.1 grain/dscf of exhaust gas, @ 7% O ₂	RM 1,2,3,4,5 and Part 51, App. M Method 202 (back half)	8M, 9M, 12M
2.2.4	Order No. DE79-421 First Amendment (As required under plans, specifications, and other information incorporated as part of the original NOC application)	F	Coal combusted at the facility shall be $\leq 0.6\%$ sulfur by weight	ASTM D4239-00 (or comparable method as approved by Ecology in writing)	11M
2.2.5	WAC 173-400-040 (6, 1 st ¶) 8/20/93 ----- WAC 173-400-040(6) 07/11/02	F ----- S	SO ₂ ≤ 1000 ppm @ 7% O ₂ (Sixty minute average)	RM 6	8M
2.2.6	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.11	F	Boiler 8 shall be rendered inoperable by the date normal operation of the new energy plant begins		10M

2.3 Section #3, College Avenue Steam Plant Boiler #6 (Natural Gas or Fuel Oil Fired)

TABLE 2.3

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.3.1	WAC 173-400-050(1), (3) 8/20/93	F	Combustion and incineration units; emissions of particulate material shall not exceed 0.1 grain/dscf of exhaust gas, @ 7% O ₂	RM 5 and Part 51, App. M Method 202 (back half)	7M
	WAC 173-400-050(1), (3) 07/11/02	S			
2.3.2	WAC 173-400-040 (6, 1 st ¶) 8/20/93	F	SO ₂ ≤ 1000 ppm @ 7% O ₂ (Sixty minute average)	RM 6	7M
	WAC 173-400-040(6) 07/11/02	S			
2.3.3	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.11	F	Boiler 6 shall be rendered inoperable by the date normal operation of the new energy plant begins		7M

2.4 Section #4, College Avenue Steam Plant Boiler #7 (Natural Gas Fired)

TABLE 2.4

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.4.1	WAC 173-400-050(1), (3) 8/20/93	F	Combustion and incineration units; emissions of particulate material shall not exceed 0.1 grain/dscf of exhaust gas, @ 7% O ₂	RM 5 and Part 51, App. M Method 202 (back half)	7M
	WAC 173-400-050(1), (3) 07/11/02	S			
2.4.2	WAC 173-400-040 (6, 1 st ¶) 8/20/93	F	SO ₂ ≤ 1000 ppm @ 7% O ₂ (Sixty minute average)	RM 6	7M
	WAC 173-400-040(6) 07/11/02	S			
2.4.3	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.11	F	Boiler 7 shall be rendered inoperable by the date normal operation of the new energy plant begins		7M

2.5 Section #5, College Avenue Steam Plant Boilers 3,4, and 5 (Coal Fired)

TABLE 2.5

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.5.1	Administrative Order No. DE 93AQ-E115 5/17/93 Approval Conditions 1, 2, and 3	F	Coal fired boilers 3,4, and 5 shall be utilized only under extreme conditions	None	13M
2.5.2	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.11	F	Boilers 3, 4, and 5 shall be rendered inoperable by the date normal operation of the new energy plant begins		13M

2.6 Section #6, College Avenue Steam Plant Boilers #1 and #2 (Natural Gas Fired, formerly boilers #9 and #10)

TABLE 2.6

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.6.1	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 3.4	F	Opacity shall be $\leq 10\%$ averaged over a six (6) minute period	RM 9	4M
2.6.2	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 8.1	F	No visible emissions shall be allowed beyond the property line or any fence around the campus power plant	RM 9 RM 22	6M
2.6.3	Order No. 01AQER-3336 Issued 11/7/01 Approval Conditions 2.2, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 3.1	F	NO _x emissions shall not exceed 20 ppmv (parts per million by volume) @ 3% O ₂ , dry basis	RM 7E	7M, 14M
	40 CFR 60.8(a), (b), (c), (d), (f), 07/01/02	F			

[illegible]

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.6.11	Order No. 01AQER-3336 Issued 11/7/01 Section 3 BACT and Section 4 T-BACT	F	Flue gas recirculation and the use of Low-NO _x burners is required	None	5M
2.6.12	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 8.5	F	All equipment shall be operated in a manner consistent with information included in NOC application and O&M Manual	None	5M
2.6.13	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 8.4	F	Approval Order and O&M Manual shall be in the working vicinity and available to employees in direct operation of the boilers	None	2M
2.6.14	Order No. 01AQER-3336 Issued 11/7/01 Approval Conditions 4 and 8.5	F	O&M shall be followed and kept updated	None	16M
2.6.15	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 8.2	F	Order No. 01AQER-3336 becomes void if operation is discontinued for 18 months	None	7M
2.6.16	Order No. 01AQER-3336 Issued 11/7/01 Approval Condition 8.6 40 CFR 60.7(a)(4), 07/01/02	F F	Any modification to the boilers or their operating procedures inconsistent with the NOC application shall be submitted to Ecology 60 days before such modification	None	2M

2.7 Section #7, College Avenue Steam Plant Coal and Ash Handling

The **College Avenue Steam Plant** Coal and Ash Handling and all sources of air emissions associated with the processes are subject to those requirements included in Section 1. Standard Conditions, Section 2.1 Section #1 Facility Wide, and the associated Monitoring Recordkeeping and Reporting Requirements in Section 3.

2.8 Section #8, Grimes Way Steam Plant

TABLE 2.8

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.8.1	Order No. 03AQER-5744 Issued 09/12/03 Approval Conditions 3.2, 3.3.3, 3.4.2	F	Opacity from each emission unit shall be \leq 10% averaged over a six (6) minute period	RM 9	4M, 18M
2.8.2	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 8.1	F	No visible emissions shall be allowed beyond the property line or any perimeter fence around the new energy plant	RM 9 RM 22	6M
2.8.3	Order No. 03AQER-5744 Issued 09/12/03 Approval Conditions 2.1, 2.2, 2.2.1, 2.2.1.1, 2.2.1.2, 2.2.1.3, 2.2.1.4, 2.2.1.5, 2.2.2, 3.1, 3.3, 3.3.1, 3.4, 3.4.1	F	NO _x emissions shall not exceed the following (7% O ₂ , 3-run average): Boilers (3) 9.3 ppmdv (gas) 1.418 lb/hr (gas) 58.2 ppmdv (#2 oil) 9.046 lb/hr (#2 oil) 1100 RICE (2) 205 ppmdv (gas) 3.974 lb/hr (gas) 1750 RICE (1) 1600 ppmdv (#2 oil) 43.07 lb/hr (#2 oil)	RM 7E	7M, 18M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.8.4	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 3.1	F	CO emissions shall not exceed the following (7% O ₂ , 3-run average): Boilers (3) 14.0 ppm _{dv} (gas) 1.310 lb/hr (gas) 73.8 ppm _{dv} (#2 oil) 6.973 lb/hr (#2 oil) 1100 RICE (2) 69.4 ppm _{dv} (gas) 0.819 lb/hr (gas) 1750 RICE (1) 79.0 ppm _{dv} (#2 oil) 1.291 lb/hr (#2 oil)	RM 10	7M, 18M
2.8.5	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 3.1	F	VOC emissions shall not exceed the following (7% O ₂ , 3-run average, as propane): Boilers (3) 3.2 ppm _{dv} (gas) 0.542 lb/hr (gas) 3.6 ppm _{dv} (#2 oil) 0.518 lb/hr (#2 oil) 1100 RICE (2) 9.1 ppm _{dv} (gas) 0.170 lb/hr (gas) 1750 RICE (1) 6.0 ppm _{dv} (#2 oil) 0.153 lb/hr (#2 oil)	RM 25 (reported as propane)	7M, 18M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.8.6	Order No. 03AQER-5744 Issued 09/12/03 Approval Conditions 3.1, 3.3.4	F	PM-10 emissions shall not exceed the following (7% O ₂ , 3-run average): Boilers (3) 0.004 gr/dscf (gas) 0.734 lb/hr (gas) 0.016 gr/dscf (#2 oil) 2.827 lb/hr (#2 oil) 1100 RICE (2) 0.017 gr/dscf (gas) 0.404 lb/hr (gas) 1750 RICE (1) 0.04 gr/dscf (#2 oil) 1.291 lb/hr (#2 oil)	RM 5 and 40 CFR 51, Appendix M RM 202	7M, 18M
2.8.7	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 3.1, 3.3.2	F	Formaldehyde emissions shall not exceed the following (7% O ₂ , 3-run average): 1100 RICE (2) 1.19 ppm _{dv} (gas) 0.015 lb/hr (gas) 1750 RICE (1) 0.01 ppm _{dv} (#2 oil) 0.00014 lb/hr (#2 oil)	40 CFR 63, Appendix A, RM 316	7M, 18M
2.8.8	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.6	F	All #2 distillate oil shall have a sulfur content of less than 0.05 weight percent as sulfur		17M
2.8.9	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.2, 6.1, 6.2, 6.3, 6.4, 6.5, 7.3	F	Total annual natural gas usage by all emission units at the energy plant shall not exceed 2,645 MMscf		17M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.8.10	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.3, 6.2, 6.3	F	Total annual #2 distillate oil usage by the following groups of emission units shall not exceed the following limits: Boilers.....5.955 MM gal RICE.....0.119 MM gal		17M
2.8.11	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.4	F	The permitted maximum annual natural gas consumption shall be reduced 140 scf for every gallon of #2 distillate oil used in the boilers.		17M
2.8.12	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.7	F	The three (3) boilers shall not average more than 3,000 hours each per year burning #2 distillate oil as fuel		17M
2.8.13	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.8	F	The two (2) 1100 RICE generators shall not average more than 5,000 hours each per year of operation		17M
2.8.14	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.9	F	The 1750 RICE generator shall not be operated more than 1,000 hours per year	None	17M
2.8.15	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.10	F	A request to increase the hours of operation of any of the three (3) RICE generators shall initiate reevaluation of the sections of Order 03AQER-5744 covering the generator(s) as if the unit(s) was/were new source(s) subject to the BACT requirements of WAC 173-400-110	None	17M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.8.16	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 1.5	F	All natural gas used by the energy plant shall be from the local utility pipeline		17M
2.8.17	Order No. 03AQER-5744 Issued 09/12/03 Section 3. BACT Section 4. T-BACT	F	<p>The equipment shall utilize the following as BACT and/or T-BACT:</p> <p>Boilers</p> <ul style="list-style-type: none"> • PM-10 – proper combustion control and burner maintenance • NO_x – ultra low-NO_x burners and flue gas recirculation • CO – burner design and maintenance and proper combustion control • VOC – burner design and maintenance, proper combustion control, and flue gas recirculation <p>RICE Generators</p> <ul style="list-style-type: none"> • PM-10 – Oxidation catalyst system • NO_x – low-NO_x design configuration • CO – Oxidation catalyst system • VOC – Oxidation catalyst system • TAP's – Oxidation catalyst system 		5M
2.8.18	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 8.5	F	All equipment shall be operated in a manner consistent with information included in NOC application and O&M Manual	None	5M, 19M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.8.19	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 8.4	F	Approval Order and O&M Manual shall be in the working vicinity and available to employees in direct operation of the boilers and RICE generators	None	2M
2.8.20	Order No. 03AQER-5744 Issued 09/12/03 Approval Conditions 4, 4.1, 4.2, 4.3, 4.4, 4.5	F	O&M manual for the boilers and RICE generators shall be developed, followed, and updated	None	19M
2.8.21	Order No. 03AQER-5744 Issued 09/12/03 Approval Conditions 5, 5.1, 5.1.1, 5.1.2, 5.1.3, 5.2, 7.1	F	Notifications specified in this AOP shall be submitted to Ecology at the address above	None	17M
2.8.22	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 8.2	F	Order No. 03AQER-5744 becomes void if operation of all emission units is discontinued for 18 months	None	7M
2.8.23	Order No. 03AQER-5744 Issued 09/12/03 Approval Condition 8.6 40 CFR 60.7(a)(4), 07/01/02	F F	Any modification to the boilers or RICE generators or their operating procedures inconsistent with the NOC application shall be submitted to Ecology 60 days before such modification	None	2M

2.9 Section #9, Medical, Pathological, and Low-level Radioactive Waste Incinerator (Incinerator)

TABLE 2.9

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.9.1*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Conditions 3.1, 5.1, 5.2, 5.3, 8.6, 9.8 40 CFR 60.56c(b)(7), (c)(1), (c)(2), (c), 7/1/02	F <hr/> F	Opacity for any emission unit or fugitive source shall be no more than 10%, averaged over a six minute period	RM 9	20M, 21M
2.9.2	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 11.1	F	No visible emissions shall be allowed beyond the property line	RM 9	20M, 21M
2.9.3*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Conditions 2.2, 2.4, 2.5, 2.6, 2.7, 3.2, 7.4, 7.5, 7.6, 10.1, 10.2, 10.7, 10.8, 10.9, 40 CFR 60.56c(b)(3), (4), (5), (6), (c)(2), (f)(1), (6), (h), (j), 7/1/02	F <hr/> F	PM emissions (front half and back half combined) shall not exceed 0.030 gr/dscf at 7% O ₂	RM 1,2,3,4, and 5 and Part 51, App. M Method 202 (back half)	7M, 21M, 24M, 26M
2.9.4*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Conditions 3.3, 10.1, 10.3 40 CFR 60.56c(b)(8), (c)(2), (f)(2), 7/1/02	F <hr/> F	CO emissions shall not exceed 40 ppmv dry, at 7% O ₂	RM 10	7M, 21M, 24M, 26M
2.9.5*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Conditions 3.5, 10.1, 10.5 40 CFR 60.56c(b)(10), (c)(2), (f)(4), 7/1/02	F <hr/> F	HCl emissions shall not exceed 10 ppmv dry, at 7% O ₂ , and shall not cause any exceedance of the ASIL given in WAC 173-460-160 (7 µg/m ³ , 24-hour average)	RM 26A	7M, 21M, 24M, 26M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.9.6*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 3.6	F	SO ₂ emissions shall not exceed 20 ppmv dry, at 7% O ₂	RM 6C	8M, 26M
2.9.7*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 3.7	F	NO _x emissions shall not exceed 250 ppmv dry, at 7% O ₂	RM 7E	8M, 26M
2.9.8*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Conditions 2.8, 3.4, 10.1, 10.4, 10.7 ----- 40 CFR 60.56c(b)(9), (f)(3), (6), 7/1/02	F F	Dioxins/Furans emissions shall not exceed 1.0 grains per billion dry standard cubic foot at 7% O ₂ , and shall not cause any exceedance of the ASIL given in WAC 173-460-150 (0.00000003 µg/m ³ , annual average)	RM 23	7M, 23M, 24M, 26M
2.9.9*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Conditions 3.8, 10.1, 10.7 ----- 40 CFR 60.56c(b)(11), (f)(6), 7/1/02	F F	Pb emissions shall not exceed 0.520 grains per 1000 dscf at 7% O ₂ , and shall not cause any exceedance of the ASIL given in WAC 173-460-150 (0.5 µg/m ³ , 24-hour average)	RM 29	7M, 22M, 24M, 26M
2.9.10*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 3.9, 10.1, 10.7 ----- 40 CFR 60.56c(b)(11), (f)(6), 7/1/02	F F	Cd emissions shall not exceed 0.020 grains per 1000 dscf at 7% O ₂ , and shall not cause any exceedance of the ASIL given in WAC 173-460-150 (0.0005600 µg/m ³ , annual average)	RM 29	7M, 22M, 24M, 26M
2.9.11*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 3.10, 10.1, 10.6, 10.7 ----- 40 CFR 60.56c(b)(11), (f)(5), (6), 7/1/02	F F	Hg emissions shall not exceed 0.240 grains per 1000 dscf at 7% O ₂ , and shall not cause any exceedance of the ASIL given in WAC 173-460-160 (0.33 µg/m ³ , 24-hour average)	RM 29	7M, 22M, 24M, 26M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.9.12	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 3.11, 10.1, 10.7	F	Cr ⁺⁶ emissions shall not cause any exceedance of the ASIL given in WAC 173-460-150 (0.0000830 µg/m ³ , annual average)	RM 29	7M, 22M, 26M
2.9.13	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 3.12, 10.1, 10.7	F	Ni emissions shall not cause any exceedance of the ASIL given in WAC 173-460-150 (0.0021000 µg/m ³ , annual average)	RM 29	7M, 22M, 26M
2.9.14	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Conditions 1.1.3, 1.2, 1.3, 8.1, 8.2, 8.3, 8.4, 8.5, 8.7, 8.8, 8.9, 8.10, 8.11, 8.12, 8.13, 8.14, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.9, 9.10, 9.11, 9.12, 9.13, 9.14, 9.15, 9.16, 9.17, 9.18 40 CFR 60.53c(h), 60.57c(a), (b), (d), 60.58c(b)(1), (b)(2)(i), (iii), (viii), (ix), (x), (xi), (xii), (xiii), (xiv), (b)(3), (4), (5), (6), (7), (8), (9), (10), (11), (d), (e), (f), 07/01/02	F F	Hours of incinerator operation shall be limited to 12 hrs/day and 2,800 hrs/calendar year	None	20M
2.9.15	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 1.1.1	F	Total medical and low-level radioactive waste shall not exceed 200 lbs/hour and 180,855 lbs/year	None	20M
2.9.16	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 1.1.2	F	Total pathological waste shall not exceed 800 lbs/hour and 977,168 lbs/year	None	20M
2.9.17	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 11.5	F	All equipment shall be operated in a manner consistent with information included in NOC application and O&M Manual	None	5M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.9.18	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 11.4 40 CFR 60.53c(j)	F	Approval Order, O&M Manual, and all required recordkeeping shall be in the working vicinity and available to employees in direct operation of the Incinerator	None	2M
2.9.19	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Conditions 5.4, 6	F	O&M shall be followed and kept updated	None	25M
2.9.20	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 1.4	F	Operational requirements specified for the incineration of medical waste shall also apply to the incineration of low-level radioactive waste	None	None
2.9.21*	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 10.11	F	The incinerator shall not be operated by anyone other than a certified operator	None	20M
2.9.22	40 CFR 60.53c 7/1/02	F	Initial certification and renewal for operators of the incinerator shall be accomplished in accordance with the guidelines included in 40 CFR 60.53c	None	2M
2.9.23	40 CFR 60.53c(i) 7/1/02	F	Permittee shall establish a program for performing annual reviews of required monitoring, recordkeeping and reporting with all operators	None	20M
2.9.24	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 10.17	F	If the bypass stack is used while waste is being incinerated, or if the incinerator or any control equipment malfunction, the incinerator shall be immediately shut down	None	2M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.9.25	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 10.14	F	Incinerator ash shall only be transferred from the incinerator to sealable non-combustible/non-melting containers within the enclosed incinerator building followed by disposal at an Ecology approved site	None	2M
2.9.26	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 10.13	F	Medical waste shall be incinerated under sufficient burning conditions to reduce all combustible material to a form such that no portion of the combustible material is visible in it's non-combusted state	None	2M
2.9.27	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 10.12	F	Waste shall not be charged to the incinerator during periods of startup, shutdown, or malfunction	None	2M
2.9.28	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 10.15	F	The treatment chemicals used with the cooling tower shall be chemicals that are not toxic air pollutants per chapter 173-460 WAC	None	2M
2.9.29	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 10.16	F	The incinerator shall only incinerate waste that has been generated by WSU research or teaching facilities	None	2M
2.9.30	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 10.1 40 CFR 60.56c(d)(2) 07/01/02	F F	The permittee shall ensure that the control equipment is operated within the established range for all operating parameters	None	2M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.9.31	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 10.10	F	Additional air pollution controls or handling procedures may be required by Ecology in order to control odors if a nuisance is identified in the future	None	None
2.9.32	Order No. DE 98AQ-E124 Issued 08/07/98 Approval Condition 11.2	F	Order No. DE 98AQ-E124 becomes void if operation is discontinued for 18 months	None	7M
2.9.33	Order No. DE 98AQ-E124 Issued 08/07/98 Section 3 BACT Section 4 T-BACT	F	Emissions controls as described shall be operated and maintained	None	27M

2.10 Section #10, Ethylene Oxide (ETO) Sterilizer – Bustad Hall (ETO-1)

The Ethylene Oxide (ETO) Sterilizer – Bustad Hall (ETO-1) and all sources of air emissions associated with the process are subject to those requirements included in Section 1. Standard Conditions, Section 2.1 Section #1 Facility Wide and the Monitoring Recordkeeping and Reporting Requirements in Section 3 (with the exception of visual emission monitoring, **4M** since ETO is a colorless gas). The specific MRRR's requiring actions to be taken with regard to this emission unit are **1M**, **3M**, and **7M**.

2.11 Section #11, Ethylene Oxide (ETO) Sterilizer – Veterinary Teaching Hospital (ETO-2)

TABLE 2.11

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.11.1	Order No. DE 95AQ-E138 Issued 8/18/95 Approval Condition 2.1	F	Stack opacity shall be \leq 10%, averaged over a six (6) minute time period	RM 9	None Required
2.11.2	Order No. DE 95AQ-E138 Issued 8/18/95 Approval Condition 7.1	F	No visible emissions shall be allowed beyond the property line	RM 9 RM 22	None Required

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.11.3	Order No. DE 95AQ-E138 Approval Conditions 2.1, 6.2	F	Ethylene oxide emissions shall be $\leq 0.01 \mu\text{g}/\text{m}^3$ or be ≤ 10.0 lbs/year (except for emergencies)	CARB 431, NIOSH 1614, NIOSH 3702, or Other, as approved by Ecology	7M, 28M
2.11.4	Order No. DE 95AQ-E138 Approval Condition 2.2, 6.3	F	The maximum concentration of ethylene oxide as measured one centimeter away from any portion of the equipment other than exhaust shall be less than 10 ppm	CARB 431, NIOSH 1614, NIOSH 3702, or Other, as approved by Ecology	29M
2.11.5	Order No. DE 95AQ-E138 Approval Conditions 1, 5	F	Annual ethylene oxide use shall be ≤ 300 pounds	None	7M, 30M
2.11.6	Order No. DE 95AQ-E138 Approval Condition 7.2	F	The catalytic combustion system shall not be operated unless the unit temperature is continuously monitored and greater than approximately 280 °F	None	31M
2.11.7	Order No. DE 95AQ-E138 Approval Conditions 3, 4, 7.2, 7.3, 7.5	F	Operation of the sterilizer or discharge of ethylene oxide is not permitted without the catalytic combustion unit operable, while any equipment is leaking, without the emission control monitors operational, or without the interlocks as stated in the NOC application (except during emergencies)	None	32M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.11.8	Order No. DE 95AQ-E138 Section 3, BACT Section 4, T-BACT	F	The discharge from both sterilizer and aerator shall be treated with a catalytic combustion control device achieving 99.9% removal for the sterilizer and 90.0% removal for the aerator	CARB 431, NIOSH 1614, NIOSH 3702, or Other, as approved by Ecology	28M
2.11.9	Order No. DE 95AQ-E138 Approval Condition 7.9	F	Operation of equipment shall be conducted in a manner consistent with information included in NOC application and O&M Manual	None	5M
2.11.10	Order No. DE 95AQ-E138 Approval Condition 7.8	F	Approval Order and O&M Manual shall be in the working vicinity and available to employees in direct operation of the EtO Sterilizer	None	2M
2.11.11	Order No. DE 95AQ-E138 Approval Condition 5	F	O&M shall be followed and kept updated	None	33M
2.11.12	Order No. DE 95AQ-E138 Approval Condition 7.4	F	ETO catalytic combustion unit exhaust shall not be near any HVAC intake	None	2M
2.11.13	Order No. DE 95AQ-E138 Approval Condition 7.6	F	Order No. DE 95AQ-E138 becomes void if operation is discontinued for 18 months	None	7M

2.12 Section #12, Animal Feed Preparation Plant

The Animal Feed Preparation Plant and all sources of air emissions associated with the process are subject to those requirements included in Section 1. Standard Conditions, Section 2.1 Section #1 Facility Wide and the Monitoring Recordkeeping and Reporting Requirements in Section 3.

2.13 Section #13, Agronomy Seed Processing Plant

TABLE 2.13

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.13.1	WAC 173-400-040(1), (1)(a), and (1)(b) 8/20/93	F	Visible emissions shall not exceed 20% opacity for more than 3 minutes in any one hour	RM 9	34M
	WAC 173-400-040(1), (1)(a), and (1)(b) 07/11/02	S			
2.13.2	WAC 173-400-060 8/20/93	F	General process units are required to meet all applicable provisions of WAC 173-400-040 and emissions of particulate material from any operation shall not exceed 0.1 grain/dscf of exhaust gas	RM 5	34M
	WAC 173-400-060 07/11/02	S			

2.14 Section #14, Compost Facility

TABLE 2.14

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.14.1	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 2.2	F	Opacity shall be less than 10%, averaged over a six minute time period	RM 9	4M
2.14.2	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 5.1	F	No visible emissions shall be allowed beyond the facility property line	RM 9	35M
2.14.3	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 2.3	F	Fugitive dust shall be minimized by use of water or other abatement technique	RM 9	35M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.14.4	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 2.3	F	Fugitive dust shall not cross the property line	RM 9	35M
2.14.5	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 2.1, 4.2	F	Odors from the facility shall not be detectable beyond the facility property line	None	36M
2.14.6	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 2.1	F	Recognized good practices as described in the most current Whitman County Dept. of Public Health permit and WSU Compost Facility Operating Procedures shall be followed to minimize odors	None	36M
2.14.7	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Conditions 1, 3	F	Permittee shall maintain records of operations and maintenance for a period of five (5) years	None	2M
2.14.8	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 1	F	Increasing composting acreage or changing types of composting materials shall be reported to Ecology (current areas approximately 4.4 acres)	None	2M
2.14.9	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 5.2	F	Order No. DE 95AQ-E148 becomes void if operation is discontinued for 18 months	None	7M
2.14.10	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 5.4	F	Approval Order and O&M Manual shall be in the working vicinity and available to employees in direct operation of the Compost Facility	None	2M

Condition Number	Condition, Emission Standard, or Work Practice	Enforceability (Federal & State = F) (State Only = S)	Description	Testing	MRRR Reference
2.14.11	Order No. DE 95AQ-E148 Issued 09/27/95 Section 3, BACT Section 4, T-BACT	F	The permittee shall follow the provisions in most current Whitman County Dept. of Public Health permit and WSU Compost Facility Operating Procedures to minimize odors	None	2M
2.14.12	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 5.5	F	Operation of equipment shall be conducted in a manner consistent with information included in NOC application and O&M Manual	None	5M
2.14.13	Order No. DE 95AQ-E148 Issued 09/27/95 Approval Condition 3	F	O&M shall be followed and kept updated	None	37M

3. Monitoring, Recordkeeping, and Reporting Requirements (MRRR)

[WAC 173-401-630(1)], [WAC 173-401-615(1)(b), (c)]

GENERAL

1M. The permittee shall conscientiously monitor site operations and promptly report any deviations.
[WAC 173-401-615(1)(b), 09/16/02]

2M. At least once every twelve (12) months, the permittee shall review actual operations and any other relevant information to determine if facility operations are being conducted in accordance with each specific requirement.

The permittee shall maintain records that include the date such reviews occur, the name of the person conducting the review, the information reviewed, summary information on any deviations identified and date and time when corrective action was initiated and completed.

[WAC 173-401-615(1)(b), 09/16/02]

3M. The permittee shall maintain records of all complaints received. Ecology shall be notified within three (3) working days of receipt of any complaints. The permittee shall address and respond to all complaints within three (3) working days of receipt of the complaint. The recordkeeping shall include the following with regard to the complaint and the associated deviation:

- 1) A record of all written complaints, complaints received by telephone or complaints received in person,
- 2) Time, date, and duration of the deviation,
- 3) Cause of the deviation,
- 4) Estimate of excess emissions and magnitude of deviation, and
- 5) Corrective action taken, and the results of such action.

[WAC 173-401-615(1)(b), 09/16/02]

4M. The permittee shall conduct monitoring in accordance with the following.

- 1) At least once per month, as well as any time excess visible emissions are observed, the permittee shall perform surveys for the purpose of observing all emission units that are sources of potential visible and/or PM emissions to which standards apply facility-wide as well as those emission units and activities for which this MRRR is specified in the "MRRR Reference" column in the above tables. Insignificant emissions units are not subject to this MRRR requirement.

Each survey shall be performed as follows:

- a) The survey shall be conducted from a location with a clear view of the emission point and where the sun is as close as possible to being directly behind the observer. The observer's location shall be at least 15 feet but not more than ¼ mile from the source.
- b) The survey shall be conducted while the relevant emission unit as well as the associated facility process is in normal operation.
- c) The observer will be educated in the general procedures for determining the presence of visible emissions (i.e. effects on the visibility of emissions caused by background contrast, position of the sun and amount of ambient lighting, observer position relative to source and sun, and the presence of uncombined water).

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- d) The survey shall consist of a minimum of four (4) consecutive 15-second visual observations of each stack or emission point to identify whether the emission point under observation exhibits visible emissions. The observer shall look away from the emission point under observation between each observation in order to rest their eyes.
 - e) The permittee shall develop a standard form to be used for the visible emissions surveys described above. A copy of the developed form shall be provided to Ecology.
- 2) Upon completion of the visual survey, the permittee's corrective actions shall be governed by the following:
- a) If visible emissions are observed to be zero, no corrective action is required.
 - b) If visible emissions are observed, the following actions shall be taken, as described below:
 - i) As soon as possible, but no later than 24 hours after visible emissions are observed, the permittee shall verify that all equipment which may affect emissions is performing its normal, designed function and being operated according to standard procedures. If any equipment is not performing as described, corrective action shall be initiated within 24 hours after the original observation of visible emissions. The corrective action taken shall return the equipment to normal operation as soon as possible and be designed to prevent the likely recurrence of the cause of the deviation.
 - a. If the corrective action taken results in a return to conditions under which visible emissions are not observable via the method outlined in 1) above within the 24 hour window after visible emissions were originally observed, no further corrective action is required.
 - b. If, after corrective action is taken, visible emissions are still observed, or if the necessary corrective action requires a period of time beyond the 24 hour window, the permittee shall perform ii):
 - c. For certain specific processes on the WSU campus, fugitive dust emissions are not considered to be completely avoidable, regardless of the dust suppression measures taken. Due to this, the permittee is not required to perform ii) below on the source of emissions if it has been assured that the process is operating according to standard procedures, all feasible dust control measures are being taken, and the resulting fugitive emissions are extremely minimal. For these sources, the permittee shall perform RM 9 once every six (6) months and submit a copy of the RM 9 test form with the semi-annual monitoring report required under Standard Condition 1.13.2. This paragraph shall apply to the following processes: power plant coal and ash handling and compost facility.
 - ii) The permittee shall perform, or have performed, RM 9 on the source of the emissions. The RM 9 test shall be conducted only by personnel certified to perform RM 9 in accordance with EPA guidelines. The test shall occur as soon as possible, but no later than forty-eight (48) hours after the original observation of visible emissions.
 - a. If the visible emissions as determined by RM 9 do not exceed the applicable standard, no further corrective action is required.
 - b. If a violation of any applicable opacity standard is documented, the permittee shall perform iii):

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iii) If a violation of any applicable opacity standard is documented, appropriate and timely action shall be initiated (as soon as possible, but no later than 24 hours after discovery of the violation via RM 9 test) to identify and correct the problem causing the opacity. The corrective action taken shall return the equipment to normal operation as soon as possible and be designed to prevent the likely recurrence of the cause of the violation. Once corrective action has been taken to solve the problem, the permittee shall perform, or have performed, RM 9 on the source of emissions in order to demonstrate re-establishment of normal operation. Taking corrective action does not relieve the permittee from complying with the underlying condition, emission standard or work practice, nor does it relieve the permittee from the obligation to report any permit deviations as required in Standard Condition 1.13.1

3) The permittee shall conduct recordkeeping in accordance with the following.

- a) The permittee shall maintain records of all RM 9 tests performed for a period of five (5) years. This recordkeeping requirement shall be satisfied by keeping the original RM 9 test form.
- b) The permittee shall maintain a list of site personnel who have been educated as described in 1), c) above, as well as a list of site personnel who are currently certified to perform RM 9.
- c) Recordkeeping with regard to each deviation shall include the following:
 - i) Time, date, and duration of the deviation,
 - ii) Cause of the deviation,
 - iii) Estimate of excess emissions and magnitude of deviation, and
 - iv) Corrective action taken, and the results of such action.

4) The permittee shall conduct reporting in accordance with the following.

- a) Copies of all RM 9 test forms which either document a deviation or re-establishment of normal operation following a deviation shall be submitted to Ecology as part of the monthly deviation reports as required by Standard Condition 1.13.1. In addition to the RM 9 form, reporting shall also include copies of the visible emission observation form(s) as well as the information required under recordkeeping under 3), c) above. The permittee is not required to submit RM 9 forms for tests conducted under 2), b), ii) above, which do not document a deviation or violation.
- b) Upon discovery that the monitoring as designed is insufficient to provide indications of all deviations, the permittee shall notify Ecology of the monitoring deficiency.

[WAC 173-401-615(1)(b), & (3), 09/16/02], [WAC 173-401-630(1), 09/16/02], [Order No. 03AQER-5744, Issued 09/12/03, Approval Condition 3.4.2]

5M. At least once every twelve (12) months, the permittee shall perform a complete review of the Operation and Maintenance manual and the original Notice of Construction Order and associated application materials submitted to Ecology as appropriate for each affected emission unit and associated equipment. The purpose of this review shall be to verify that the emission unit and associated equipment is being operated in accordance with the documents stated above.

At least once every six (6) months, the permittee shall perform a review of the operation and maintenance parameters/practices as included in the Operation and Maintenance manual for each affected emission unit and associated equipment.

The permittee shall maintain records that include the date such reviews occur as well as the name of the person conducting the review. Upon discovery that any equipment is being operated in a manner

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inconsistent with any of the above mentioned documents, the permittee shall initiate corrective action within two (2) business days. All such discoveries shall be reported to Ecology as required by Standard Condition 1.13.1 of this permit.

[WAC 173-401-615(1)(b), 09/16/02]

- 6M.** At least once per month, as well as any time visible emissions are observed, the permittee shall perform brief, walk-around surveys for the purpose of determining the presence of visible emissions crossing the facility site property or facility boundary. The surveys shall be conducted while the facility is in operation, and shall include observation for any visible emissions, including fugitive emissions, regardless of the source. Recordkeeping shall include information for each survey indicating the date the survey was performed, the name of the person performing the survey, the weather at the time of the survey, and an indication of whether any visible emissions were observed to cross the property boundary. Reporting shall consist of monthly reporting of deviations as described in Standard Condition 1.13.1, as well as annual certification of compliance as described in Standard Condition 1.13.3. Any monthly deviation reports documenting visible emissions observed to cross the property boundary shall include the time, date and duration of the deviation, a description of the cause of the visible emissions, the corrective action taken, and the results of the corrective action.

[WAC 173-401-615(1)(b), 09/16/02]

- 7M.** Semi-Annually – As part of the semi-annual monitoring report, the permittee shall submit parametric monitoring data for parameters that are used to calculate emissions. This may include actual fuel usage, actual hours of operation, actual steam production, etc.

Annually – As part of the annual emissions inventory submittal required under Standard Condition 1.13.45, emissions shall be quantified by multiplying the appropriate recorded operating parameter (fuel usage, hours of operation, steam production, etc..) by an emission factor derived from the most recent source testing. If test-derived factors are unavailable, use the most recent emission factor published by USEPA. In the event that the most recent published data provides a range of emission factors, the calculation shall be performed using the most conservative factor within the provided range. Use of less conservative emission factors may be used only upon written approval by Ecology. In the event that USEPA emission factors are either inappropriate or unavailable, the permittee shall propose an alternative emission factor (or emission estimation method) that may be used upon written approval by Ecology.

Calculations should be adjusted for percent oxygen as required by the applicable requirement and should indicate pollutant emission rate and concentration in the same units as the limit(s) specified in the applicable requirement(s). The emission inventory submittal shall include a statement clearly indicating the emission factor that is being used, justification for the use of the emission factor, clear identification of all operating parameters used in the calculational method, and an example of the calculational method used.

Specifically for College Avenue Steam Plant boilers 6 and 7:

A report providing details of the actions taken to render boilers 6 and 7 inoperable shall be submitted to Ecology within thirty (30) days of the date of such actions. The permittee shall retain a copy of this report. As of the date the boilers are rendered inoperable, the provisions of this monitoring condition are no longer applicable.

[WAC 173-401-615(1)(b), 09/16/02], [Order No. 03AQER-5744, Issued 09/12/03, Approval Conditions 3.4, 3.4.1, 3.4.2]

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8M. Source testing as referenced shall be conducted at least once every five years.

Semi-Annually – As part of the semi-annual monitoring report, the permittee shall submit parametric monitoring data for parameters that are used to calculate emissions. This may include actual fuel usage, actual hours of operation, actual steam production, etc.

Annually – As part of the annual emissions inventory submittal required under Standard Condition 1.13.4, emissions shall be quantified by multiplying the appropriate recorded operating parameter (fuel usage, hours of operation, steam production, etc..) by an emission factor derived from the most recent source testing.

Calculations should be adjusted for percent oxygen or percent carbon dioxide as required by the applicable requirement and should indicate pollutant emission rate and concentration in the same units as the limit(s) specified in the applicable requirement(s). The emission inventory submittal shall include a statement clearly indicating the emission factor that is being used, justification for the use of the emission factor, clear identification of all operating parameters used in the calculational method, and an example of the calculational method used.

Specifically for College Avenue Steam Plant Boiler #8, as of the date the boiler is rendered inoperable, the provisions of this monitoring condition are no longer applicable.

[WAC 173-401-615(1)(b), 09/16/02]

COLLEGE AVENUE STEAM PLANT COAL FIRED BOILER #8

9M. Monitoring, Recordkeeping, and Reporting as required by 40 CFR 64 – CAM shall be subject to the following general conditions. As of the date the boiler is rendered inoperable, the provisions of this monitoring condition are no longer applicable.

- 1) The owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emission unit is operating, with the following qualifications:
 - a) Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement.
 - b) The owner or operator shall use all data collected during all other periods in assessing the operation of the control device and associated control system.
 - c) “Monitoring malfunction” is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 64.7(c), 07/01/02], [40 CFR 64.7(a), 07/01/02]

- 2) Semi-annual CAM monitoring reports shall include the following:

- a) Summary information on the number, duration, and cause (including unknown cause, if applicable) of deviations or violations, as applicable, and the corrective actions taken,
- b) Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks), and
- c) A description of any actions taken during the reporting period to implement any QIP’s in effect.

COLLEGE AVENUE STEAM PLANT COAL FIRED BOILER #8

[40 CFR 64.9(a), 07/01/02]

- 3) The following conditions shall apply to all CAM recordkeeping:
 - a) The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan(s) required as well as any activities undertaken to implement a quality improvement plan, and any other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
 - b) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 CFR 64.9(b), 07/01/02]

10M. The following conditions shall apply to the monitoring, recordkeeping, and reporting required for College Avenue Steam Plant coal fired boiler #8. As of the date the boiler is rendered inoperable, the provisions of this monitoring condition are no longer applicable.

- 1) The following monitoring shall be performed:
 - a) Continuous Emissions Monitoring System (CEMS) to measure opacity, which meets the approval requirements of the Environmental Protection Agency shall be maintained in good operating condition. The CEMS opacity meter shall conform to all provisions of Title 40, CFR Part 60, Appendix B, Performance Specification 1 - Specifications and Test Procedures for Opacity Continuous Emissions Monitoring Systems in Stationary Sources. The CEMS opacity meter shall be operated using quality assurance procedures conforming to EPA 340/1-86-010, Recommended Quality Assurance Procedures of Opacity CEMS. The CEMS shall be installed and operating correctly prior to any source testing.
 - b) During any period when the COMS is inoperable, the permittee shall perform visible emissions surveys per **4M** at least once per day.
- 2) The following recordkeeping specific to the coal fired boiler shall be retained for a period of five (5) years and kept in an organized, legible manner readily available for inspection by Ecology personnel.
 - a) Chart recorder readings for opacity.
 - b) A copy of the report submitted to Ecology documenting the actions taken to render boiler 8 inoperable as required by Order No. 03AQER-5744.
 - c) Copies of any records resulting from visible emissions surveys (per **4M**) performed.
- 3) Reporting specific to the coal fired boiler shall be conducted in accordance with the following.
 - a) Any three minute averaged emission in excess of twenty-percent (20%) opacity shall be reported to Ecology on a monthly basis no later than thirty (30) days after the end of the month during which the deviation is discovered. The report should include the following information for each deviation event:
 - i) The time of the deviation.
 - ii) The peak opacity reached.
 - iii) The duration.

COLLEGE AVENUE STEAM PLANT COAL FIRED BOILER #8

- iv) The probable cause.
- v) Any corrective action taken or planned and the results of such action.
- b) A report providing details of the actions taken to render boiler 8 inoperable shall be submitted to Ecology within thirty (30) days of the date of such actions.

[WAC 173-401-615(1)(b), 09/16/02]

- 11M.** The following shall serve as monitoring, recordkeeping, and reporting with regard to the condition governing sulfur content in the coal burned in the College Avenue Steam Plant Boiler #8. As of the date the boiler is rendered inoperable, the provisions of this monitoring condition are no longer applicable.

Monitoring

The permittee shall perform, or have performed, testing as described in order to determine coal sulfur content. Testing shall be performed at least once for each shipment of coal.

Recordkeeping

The permittee shall retain copies of all coal sulfur analysis results for a period of five (5) years. The records shall be kept in an organized, legible manner readily available for inspection by Ecology personnel.

Reporting

In the event that any coal sulfur analysis results indicate a sulfur content that is above the limit specified in this permit, a copy of the analysis shall be provided to Ecology in accordance with Standard Condition 1.13.1. The report shall provide an explanation for the high sulfur content in the coal and shall include description of any corrective action taken to obtain coal with sulfur content within the regulatory limits and to prevent the likely recurrence of the cause of the violation.

[WAC 173-401-615(1)(b), 09/16/02]

- 12M.** The following shall function as Compliance Assurance Monitoring for the College Avenue Steam Plant coal fired boiler #8. As of the date the boiler is rendered inoperable, the provisions of this monitoring condition are no longer applicable.

- 1) The permittee shall conduct monitoring in accordance with the following.
 - a) Equipment shall be provided that monitors, and displays continuously, baghouse differential pressure in inches of water column (in. w.c.). Such equipment shall be calibrated at least once every twelve (12) months.
 - b) At least once per day, the permittee shall evaluate the data obtained through recordkeeping as described in 2) a) below with respect to the following criteria:
 - i) The baghouse differential pressure shall be between the upper and lower limits specified below.
 - a. The lower trigger limit shall be 1 in. w.c.
 - b. The upper trigger limit shall be 6 in. w.c.
 - c) Under conditions that meet the criteria outlined in 1) b) above, or if the pressure drop has exceeded 6 in. w.c. due only to a baghouse cleaning cycle, no corrective action is required under CAM.

COLLEGE AVENUE STEAM PLANT COAL FIRED BOILER #8

- d) In the event the criteria outlined in 1) b) above are not met, corrective action consistent with the following shall be taken.
 - i) As soon as possible, but no later than 4 hours after discovery of the deviation, the permittee shall initiate corrective actions that are designed to return the equipment to normal operation as soon as possible and to prevent the likely recurrence of the cause of the deviation. These corrective actions shall consist of, but not be limited to the following:
 - a. Visual inspection of the manometers for each section of the baghouse to determine if the baghouse is operating within the parameters established in the operation instruction manual published by the manufacturer,
 - b. Verification that the opacity is within normal operational levels, and
 - c. Modify the baghouse operation according to the established procedures located at the baghouse control panel.
- 2) The permittee shall conduct recordkeeping in accordance with the following.
 - a) The permittee shall record continuously the values for the differential pressure of the baghouse.
 - b) In the event of a deviation from the criteria outlined in 1) b) above, the permittee shall maintain records documenting any corrective action taken, and the results of such action. The records shall be retained in a well organized manner and easily accessible for inspection by Ecology personnel.
 - c) The permittee shall maintain records documenting the annual maintenance and calibration of the differential pressure gauge.
- 3) The permittee shall conduct reporting in accordance with the following.
 - a) In the event of a deviation from the criteria outlined in 1) b) above, the permittee shall submit a report as part of, or attached to, the monthly deviation report as described in Standard Condition 1.13.1. The report shall include the appropriate data as recorded documenting the deviation, the duration of the deviation, a description of the corrective action taken, and the results of the corrective action.
 - b) Upon discovery that the monitoring as designed is insufficient to provide indications of all deviations, the permittee shall notify Ecology of the monitoring deficiency.

[40 CFR 64.3, 64.4(d), 64.7(d), 64.7(e), 64.8, 07/01/02]

COLLEGE AVENUE STEAM PLANT BOILERS #3, #4, AND #5

- 13M.** The following conditions shall apply to the operation of College Avenue Steam Plant boilers #3, #4, and #5. As of the date the boilers are rendered inoperable, the provisions of this monitoring condition are no longer applicable.
- 1) The university shall report in writing to Ecology whenever boilers three, four, and/or five are operated. The reports submitted shall include the following information.
 - a) The reason that the boilers were operated.
 - b) The time, date, and duration of operation.
 - c) The amount of coal used and steam produced.
 - 2) Extreme conditions shall include the following:

COLLEGE AVENUE STEAM PLANT BOILERS #3, #4, AND #5

- a) Disruption of firm natural gas supplies.
 - b) Failure of boilers providing primary steam production.
 - c) Extreme weather conditions outside historical norms.
- 3) The reports shall be submitted according to the following:
- a) Upon decision to operate boilers #3, #4, and/or #5, the permittee shall notify Ecology within 2 working days following the startup of the boilers. This notification may be accomplished by an email communication, fax, or telephone conversation.
 - b) The written report shall be submitted to Ecology as part of the monthly deviation report required by Standard Condition 1.13.1.
- 4) Operation of the boilers #3, #4, and/or #5 shall be subject to the following monitoring. The monitoring described shall take the place of **4M** visible emission monitoring as required under facility wide requirements.
- a) If the boiler being operated is equipped with a Continuous Opacity Monitoring System (COMS), the COMS unit shall be operational at all times of boiler operation. Appropriate records shall be maintained to include as a minimum opacity chart recorder readings and the information required to be reported under 1) above. In addition to operation of the COMS, **4M** shall be performed once per week of boiler operation. If a significant number of RM 9 tests indicate that the stack opacity as measured by the COMS is accurate, the permittee may request that the weekly **4M** observation be reduced in frequency or eliminated. This request shall be subject to Ecology discretion and must be approved in writing.
 - b) If the boiler being operated is not equipped with a COMS, or the COMS is not operating, **4M** shall be performed once upon startup of the boiler and once every other day of boiler operation afterward.
- 5) Should the permittee decide to pursue extended operation of the boilers, such extended operation shall require a compliance schedule pursuant to WAC 173-400-161 as well as additional air pollution controls as determined through the NOC permitting process. If extended operation of the boilers is anticipated, Ecology shall be notified within 24 hours, or the next business day, so that a compliance schedule may be issued. Such compliance schedule may allow operation of the boilers in violation of state emission concentration standards for a limited time period, and will require the university to propose subsequent remedial actions.
- 6) A report providing details of the actions taken to render boilers 3, 4 and 5 inoperable shall be submitted to Ecology within thirty (30) days of the date of such actions. The permittee shall retain a copy of this report.

[Administrative Order No. DE 93AQ-E115, Issued 5/17/93, Approval Conditions 1, 2, and 3],
[WAC 173-401-630(1), 09/16/02], [WAC 173-401-615(1)(b), 09/16/02]

COLLEGE AVENUE STEAM PLANT NATURAL GAS FIRED BOILERS #1 AND #2

14M. The following conditions shall apply to the testing required for College Avenue Steam Plant boilers #1 and #2.

- 1) Alternative Testing – The testing specified shall be conducted unless alternate or equivalent tests are requested in writing by the permittee and approved of by Ecology.

COLLEGE AVENUE STEAM PLANT NATURAL GAS FIRED BOILERS #1 AND #2

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.2], [40 CFR 60.8(b), 7/1/02]

- 2) Number of Test Runs – Unless specifically noted below, testing of each boiler shall consist of three separate runs of at least 60-minutes each.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.4], [40 CFR 60.8(f), 7/1/02]

- 3) Throughput during Testing – During testing, each boiler shall be operated at a minimum of ninety percent (90%) of rated capacity (90% of 99.4 MMBTU/hour = 89.5 MMBTU/hour). Operation of each boiler during testing at less than ninety percent (90%) may be proposed but will result in an operational restriction that will be amended to this Approval Order.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.5], [40 CFR 60.8(c), 7/1/02]

- 4) Notification of Performance Testing – The permittee shall provide written notification to Ecology of their intent to conduct any performance test at least 30-days before such test is scheduled to begin. A written test plan, including a description of the method(s) proposed, shall be submitted for approval to Ecology at least thirty (30) calendar days prior to the start of any performance test.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Conditions 2.6, 2.7], [40 CFR 60.8(d), 7/1/02]

- 5) Notification of Inability to Conduct Performance Test – If the permittee is unable to conduct any performance test as scheduled, Ecology shall be notified at least 24-hours before the test.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.8], [40 CFR 60.8(d), 07/01/02]

- 6) Boiler Operator during Testing – The boilers shall be operated and controlled by Campus Power Plant operators during the period when the performance testers are on-site to conduct testing and during actual testing.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.9], [40 CFR 60.8(c), 07/01/02]

- 7) Periodic Performance Testing – Following initial boiler compliance testing, subsequent performance testing while combusting natural gas shall be conducted on the boiler once every five calendar years unless an alternate frequency is requested in writing by the permittee and approved of by Ecology.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.10]

- 8) Performance Testing Results – The results of all initial performance and any subsequent periodic performance testing shall be sent to the Ecology no later than 60-days following such testing.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 2.11], [40 CFR 60.8(a), 7/1/02]

- 9) Opacity readings per RM 9 will be required if any visible emission except water vapor are observed from the boiler exhaust stack during source testing.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 3]

15M. The following monitoring, recordkeeping, and reporting requirements shall apply specifically to natural gas fired College Avenue Steam Plant boilers #1 and #2.

- 1) The permittee shall conduct monitoring and associated recordkeeping in accordance with the following.
 - a) The operation of each boiler shall be monitored for any malfunction. In the event of a malfunction, the permittee shall record the date, time, duration, cause, and any associated corrective action taken with respect to the malfunction, in addition to clearly identifying the boiler.

COLLEGE AVENUE STEAM PLANT NATURAL GAS FIRED BOILERS #1 AND #2

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 6.1], [40 CFR 60.7(b), 07/01/02]

- b) The permittee shall monitor and record boiler fuel consumption for each boiler on a calendar month basis as well as a daily basis. This recordkeeping shall be accomplished via fuel billing statements and/or meter readings.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 6.2], [40 CFR 60.48c(g), 07/01/02]

- c) The permittee shall maintain a file of all source testing results, including initial source testing.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 6.3], [40 CFR 60.7(f), 07/01/02]

- d) The permittee shall maintain an O&M manual as well as all maintenance records.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 6.4]

- 2) The permittee shall conduct reporting in accordance with the following. All reporting shall be performed in accordance with Standard Condition 1.13.

- a) In the event of any malfunction, the permittee shall submit to Ecology a report that clearly identifies the boiler and includes the date, time, duration, cause, and any associated corrective action taken with respect to the malfunction.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 7.1], [WAC 173-401-630(1), 09/16/02]

- b) Total natural gas consumption by each boiler shall be reported to Ecology once every three (3) months following startup of the boilers. The report shall state the total natural gas usage for each boiler during each of the preceding three (3) months, and shall be submitted no later than thirty (30) days following the end of the three month period being reported.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 7.2]

- c) Estimated annual emissions of PM, SO_x, NO_x, CO, VOC and total TAP's from the boilers for the previous calendar year shall be submitted to Ecology as part of the annual emissions inventory.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Condition 7.3]

- 16M.** The O&M manual(s) for equipment that has the potential to affect emissions associated with the natural gas fired College Avenue Steam Plant boilers #1 and #2 shall be retained in an up-to-date manner, well organized, and easily accessible for inspection by Ecology personnel. Emissions that result from failure to follow the requirements in the O&M manuals may be considered proof that the equipment was not properly operated, maintained and tested. The O&M manual(s) must include the following:

- 1) Normal operating parameters,
- 2) Instrumentation necessary to monitor operating parameters,
- 3) A maintenance schedule,
- 4) A summary and description of the monitoring and recordkeeping requirements and procedures.

[Order No. 01AQER-3336, Issued 11/7/01, Approval Conditions 4 and 8.5]

GRIMES WAY STEAM PLANT

- 17M.** The following conditions shall apply to the monitoring, recordkeeping, and reporting required for emission units located at the Grimes Way Steam Plant.

GRIMES WAY STEAM PLANT

- 1) The permittee shall conduct monitoring in accordance with the following.
 - a) Hours of operation of each emission unit including hours operating on #2 distillate oil.
- 2) The following recordkeeping specific to the emission units at the new energy plant shall be retained for a period of five (5) years and kept in an organized, legible manner readily available for inspection by Ecology personnel.
 - a) Fuel usage records retained shall include total usage of each type of fuel by emission unit per calendar month as well as overall facility totals for each fuel by calendar year. This recordkeeping requirement shall be met by retaining fuel purchase records and may be supplemented via meter readings. All #2 distillate oil purchase records shall specify the fuel sulfur content or otherwise identify the fuel as low sulfur diesel.
 - b) Annual total hours of operation of each emission unit including hours operating on #2 distillate oil.
 - c) Occurrence and duration of any malfunction in the operation of each boiler and RICE generator. The record shall include identification of the boiler and/or RICE generator, date, time, duration and/or cause, as applicable. This requirement may be combined with actions taken to comply with the requirements of standard condition 1.13.1.
 - d) Copies of all reports containing source testing results.
 - e) A copy of the O&M manual and maintenance records.
- 3) Reporting specific to the emission units at the new energy plant shall be performed in accordance with the following.
 - a) Notification of the date when all three (3) boilers have successfully completed test firing as defined under **18M** 1) a) i).
 - b) Notification of the date normal operation starts as defined under either **18M** 1) a) or **18M** 1) b).
 - c) Notification that the O&M manual is complete shall be provided to Ecology within thirty (30) days of completion of operational testing.
 - d) Occurrence and duration of any malfunction per the recordkeeping requirement above shall be sent to Ecology. This notification shall comply with the requirements of standard condition 1.13.1.
 - e) Fuel consumption by type for each boiler and RICE generator shall be submitted to Ecology quarterly (every three months). Three month periods shall commence following completion of the operational testing for the boilers and RICE generators. Each report shall be due no later than thirty (30) days following the end of the three month period, and shall be certified by the responsible official or designated alternate.

[Order No. 03AQER-5744, Issued 09/12/03, Approval Conditions 5, 5.1, 5.1.1, 5.1.2, 5.1.3, 5.2, 6.1, 6.2, 6.3, 6.4, 6.5, 7.1, 7.3], [WAC 173-401-615(1)(b), 09/16/02]

18M. The following conditions shall apply to the testing required for emission units at the Grimes Way Steam Plant:

- 1) Within ninety (90) days of the start of normal operation, the boilers and RICE generators shall have their emissions tested by an independent contractor. Normal operation starts when the earlier of the following two criteria are met:
 - a) The permittee notifies Ecology that the modified steam plant meets the following criteria:

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- i) The new boilers and support systems at the Grimes Way power plant are installed, tested and have met the operational reliability criteria for burning natural gas and #2 distillate oil.
- ii) The steam system on campus and at the old power plant at Tacoma St. and College Ave. has been reconfigured for the two power plant operations.
- iii) The distributed control system has been installed, tested, and has met the operation reliability criteria.
- iv) The RICE units have been installed, connected to the plant electrical system, and emergency operation has been tested and shown to meet the operational reliability criteria.
- v) Boilers 1 and 2 under Order No. 01AQER-3336 have met the operational reliability requirements of the permittee.

OR

- b) When one hundred eighty (180) days have elapsed since the last of the 3 new boilers at the Grimes Way Power Plant have been test fired on distillate oil and natural gas.
- 2) Following initial performance testing, each emission unit shall be tested annually for NO_x, CO, and VOC. Once a unit has passed for three (3) consecutive years, the testing frequency may be reduced to once every five (5) years.
 - 3) Following initial performance testing, each RICE generator shall be tested for formaldehyde at least once every five (5) years.
 - 4) During testing, opacity shall be measured at least once during each test run by certified personnel using EPA method 9. Separate RM 9 forms shall be completed for each test run, and copies shall be included in the test report.
 - 5) Initial performance testing for PM-10 is not required. Testing for PM-10 or other pollutants of concern may be required by Ecology in the future.
 - 6) The specified testing shall be conducted unless alternate or equivalent test methods are requested in writing by the permittee and approved of by Ecology.
 - 7) The permittee shall provide testable emission points, sampling ports, safe access to sampling points and ports, and utilities for sampling and testing.
 - 8) Unless specifically noted otherwise in this Order, testing of each piece of energy equipment shall consist of three separate runs of at least sixty (60) minutes each. Boilers shall be tested while operating on natural gas and separately while operating on #2 distillate oil.
 - 9) During testing, each piece of energy equipment shall be operated at a minimum of ninety percent (90%) of rated capacity (Example: 90% of 98.495 MMBtu/hour = 88.65 MMBtu/hour). Operation of energy equipment during testing at less than ninety percent (90%) may be proposed, but will result in an operation restriction that will be amended to this approval order.
 - 10) The permittee shall provide written notification to Ecology of their intent to conduct any performance test at least thirty (30) days before such test is scheduled to begin.
 - 11) A written test plan, including a description of the method(s) proposed, shall be submitted for approval to Ecology at least thirty (30) calendar days prior to the start of any performance test.
 - 12) If the permittee is unable to conduct any performance test as scheduled, Ecology shall be notified at least twenty-four (24) hours before the test at the address provided above or via telephone or email.

GRIMES WAY STEAM PLANT

- 13) The energy equipment shall be operated and controlled by Campus Power Plant operators during the period when the performance testing are on site to conduct testing and during actual testing.
- 14) Following initial performance testing, subsequent performance testing while combusting the approved fuels shall be conducted on the energy equipment annually until the equipment has passed for three (3) consecutive years then thereafter once every five (5) calendar years unless an alternate frequency is requested in writing by the permittee and approved of by Ecology.
- 15) The results of all initial performance and all other periodic performance testing shall be sent to Ecology at the above address. One copy of the completed test report shall be submitted no later than sixty (60) days after the last day of testing.

[Order No. 03AQER-5744, Issued September 12, 2003, Approval Conditions 2.1, 2.2, 2.2.1, 2.2.1.1, 2.2.1.2, 2.2.1.3, 2.2.1.4, 2.2.1.5, 2.2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, 2.12, 3.3, 3.3.1, 3.3.2, 3.3.3, 3.3.4], [40 CFR 60.8(a), (b), (c), (d), (e), (f), 07/01/03], [WAC 173-401-615(1)(b), 09/16/02], [WAC 173-400-105(4), 07/11/02]

19M. A site specific O&M manual for the boilers and RICE generators shall be developed and followed. Manufacturer's instructions may be referenced. Emissions that result from failure to follow the requirements of the O&M manual or manufacturer's instructions may be considered proof that the boilers and RICE generators were not properly maintained and operated. The O&M manual shall be updated to reflect any modifications of the equipment or its operating procedures. The O&M manual shall at a minimum include a description of:

- 1) Normal operating parameters,
- 2) Instrumentation to monitor operating parameters,
- 3) A maintenance schedule,
- 4) Monitoring and record keeping requirements, and
- 5) Monitoring procedures.

[Order No. 03AQER-5744, Issued 09/12/03, Approval Conditions 4, 4.1, 4.2, 4.3, 4.4, 4.5, 8.5]

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20M. The following conditions shall apply to the monitoring, recordkeeping, and reporting required for the incinerator.

- 1) The permittee shall conduct monitoring in accordance with the following.
 - a) Continuous Emissions Monitoring System (CEMS) to measure opacity, which meets the approval requirements of the Environmental Protection Agency shall remain installed. The CEMS opacity meter shall conform to all provisions of Title 40, CFR Part 60, Appendix B, Performance Specification 1 - Specifications and Test Procedures for Opacity Continuous Emissions Monitoring Systems in Stationary Sources. The CEMS opacity meter shall be operated using quality assurance procedures conforming to EPA 340/1-86-010, Recommended Quality Assurance Procedures of Opacity CEMS. The CEMS shall be installed and operating correctly prior to any source testing.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 3.1, 5.1, 5.2, 5.3, 8.6]
 - b) WSU shall install, calibrate to manufacturers' specifications, maintain, and operate devices or establish methods, for continuously monitoring and recording as noted, the following information and operating parameters. The monitoring and recordkeeping outlined shall take place at all times except during startup and shutdown.
 - i) Waste type and charge rate shall be recorded once per hour. The limit as specified shall not be exceeded without a revised NOC approval order issued by Ecology.
 - ii) Total waste throughput by waste type (medical, low-level radioactive, and pathological) for the previous twelve (12) month period shall be recorded. The limit as specified shall not be exceeded without a revised NOC approval order issued by Ecology.
 - iii) Maximum flue gas temperature just prior to exhausting to the atmosphere (record once per minute).
 - iv) Minimum secondary combustion chamber temperature (record once per minute).
 - v) Minimum horsepower or amperage of the liquid pump (record once per minute).
 - vi) Minimum gas pressure drop across each of the wet scrubbers (record once per minute).
 - vii) Maximum gas temperature at the outlet of each of the wet scrubbers (record once per minute).
 - viii) Minimum liquor flow rate to the inlet of each of the wet scrubbers (record once per minute).
 - ix) Minimum liquor pH at the inlet of each of the wet scrubbers (record once per minute).
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 1.2, 8.1, 8.8], [40 CFR 60.53c(h)(8), 60.57c(a), 60.58c(b)(1), (2)(viii), (ix), (x), (xi), (xii), (xiii), (xiv), 7/1/02]
 - c) WSU shall install, calibrate to manufacturers' specifications, maintain, and operate a device or method for measuring the use of the bypass stack. The documentation shall include the date, time and duration of all instances when the bypass stack is used.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.7], [40 CFR 60.57c(b), 07/01/02]
- 2) The following recordkeeping specific to the incinerator shall be retained for a period of five (5) years and kept in an organized, legible manner readily available for inspection by Ecology personnel.
[40 CFR 60.53c(h)(9), 7/1/02], [40 CFR 60.58c(f), 07/01/02]

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- a) Opacity measurement information as determined by COMS.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.6], [40 CFR 60.58c(b)(2)(i), 07/01/02]
- b) All required monitoring data at all times during incinerator operation except during periods of monitoring equipment malfunction, calibration, or repair. Valid monitoring data shall be obtained for a minimum of seventy-five percent (75%) of the operating hours for each day and for ninety percent (90%) of the operating days per calendar quarter.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.2], [40 CFR 60.57c(d), 60.58c(b)(2)(iii), 07/01/02]
- c) Records shall include identification of all calendar days on which the operating parameter data were not obtained. This identification document shall include an identification of the operating parameters not measured, reasons for not obtaining the data and a description of corrective actions taken.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.3], [40 CFR 60.58c(b)(3), 07/01/02]
- d) Records of all emergencies and situations that result in possible excess emissions releases. All situations where the incinerator was operated while the air pollution control equipment was not functioning properly qualify as possible excess emissions release incidents.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.4], [40 CFR 60.58c(b)(4), 07/01/02]
- e) Records shall include identification of all calendar days and times on which the operating parameters deviated from the applicable limits that have been established by the permittee. This documentation shall include a description of the deviations, reasons for such deviations and a description of corrective actions taken.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.5], [40 CFR 60.58c(b)(5), 07/01/02]
- f) The total hours of operation for each day, month and calendar year shall be recorded.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.9], [WAC 173-401-630(1), 09/16/02]
- g) The total natural gas usage for each calendar year shall be recorded.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.10]
- h) All initial performance test results. Periodic performance test results shall be retained in accordance with Standard Condition 1.27.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.11], [40 CFR 60.58c(b)(6), 07/01/02]
- i) All maintenance records.
[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.12]
- j) A record of all WSU incinerator operators that are certified per WAC 173-300, along with their certification and renewal dates.

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[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.13], [40 CFR 60.58c(b)(9), (10), 07/01/02]

- k) A record of efforts to create an on-going awareness of proper waste management practices among all users of the incinerator's disposal services as part of the waste management plan.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 8.14], [40 CFR 60.55c, 7/1/02]

- l) A summary of the applicable standards under 40 CFR 60 Subpart Ec (40 CFR 60.50c – 60.58c).
[40 CFR 60.53c(h)(1), 7/1/02]
- m) A description of the basic combustion theory applicable to a medical/infectious waste incinerator.
[40 CFR 60.53c(h)(2), 7/1/02]
- n) Procedures for receiving, handling, and charging waste.
[40 CFR 60.53c(h)(3), 7/1/02]
- o) Incinerator startup, shutdown, and malfunction procedures.
[40 CFR 60.53c(h)(4), 7/1/02]
- p) Procedures for maintaining proper combustion air supply levels.
[40 CFR 60.53c(h)(5), 7/1/02]
- q) Procedures for operating the incinerator and associated air pollution control systems within the established standards.
[40 CFR 60.53c(h)(6), 7/1/02]
- r) Procedures for responding to periodic malfunction or conditions that may lead to malfunction.
[40 CFR 60.53c(h)(7), 7/1/02]
- s) Procedures for handling ash.
[40 CFR 60.53c(h)(10), 7/1/02]
- t) The permittee shall maintain records documenting the annual operator review of monitoring, recordkeeping and reporting requirements. Such records shall include the name of the operator(s) as well as the date the review occurred.
[WAC 173-401-615(1)(b), 09/16/02], [40 CFR 60.58c(b)(8), 07/01/02]
- u) Documentation generated during the planning and siting of the incinerator.
[40 CFR 60.58c(b)(7), 07/01/02]
- v) Records of calibration of devices required for monitoring the specific operating parameters stated in 1)b) of this MRRR.
[40 CFR 60.58c(b)(11), 07/01/02]

- 3) Reporting specific to the incinerator shall be conducted in accordance with the following.

[40 CFR 60.53c(h)(9), 7/1/02]

- a) Any planned modification to the plant or operating procedures shall be reported to Ecology.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 1.3]

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- b) Any six minute averaged emission in excess of ten-percent (10%) opacity shall be reported to Ecology on a monthly basis no later than thirty (30) days after the end of the month during which the deviation is discovered. The report should include the following information for each deviation event:

- ii) The date, time, and duration of the deviation.
- iii) The magnitude of the deviation.
- iv) An estimate of excess emissions.
- v) The probable cause of the deviation.
- vi) Any corrective action taken or planned and the results of such action.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.8], [WAC 173-401-630(1), 09/16/02]

- c) The following information shall be sent to Ecology. Reporting shall be submitted once per reporting period in accordance with Standard Condition 1.13.2 with the exception of information required under item xvi) which shall be submitted within monthly deviation reports per Standard Condition 1.13.1.

[Order No. DE 98AQ-E124, Approval Condition 9.18], [40 CFR 60.58c(d), (e), 07/01/02]

- i) The site specific range of values for the following operating parameters as established during initial or subsequent source testing. This should include the high and low values for each parameter as established by source testing.
 - a. Maximum flue gas temperature just prior to exhausting to the atmosphere.
 - b. Minimum secondary combustion chamber temperature.
 - c. Minimum horsepower or amperage of the liquid pump for each of the wet scrubbers.
 - d. Minimum gas pressure drop across each of the wet scrubbers.
 - e. Maximum gas temperature at the outlet of each of the wet scrubbers.
 - f. Minimum liquor flow rate to the inlet of each of the wet scrubbers.
 - g. Minimum liquor pH at the inlet of each of the wet scrubbers.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 9.1, 9.2]

- ii) The highest and lowest values as measured for each operating parameter over the previous twenty four (24) month period.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.3]

- iii) A statement indicating whether any omissions, situations or deviations occurred during the prior twelve (12) month period. If any did occur, a brief statement describing the omission, situation, or deviation.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.4], [WAC 173-401-630(1), 09/16/02]

- iv) Documentation that clearly identifies all time periods for which operating parameter data were not obtained during the calendar year.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.5]

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- v) The nature and details of any emergency or other situation pertaining specifically to the incinerator.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.6]

- vi) The actual recorded data outlining any deviations from established operating parameter upper or lower limits. The report should compare the actual recorded operating parameter values with the appropriate established parameter limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.7]

- vii) Any information regarding emergency situations, days for which operating parameter data was not collected, and days for which recorded operating parameter data deviated from applicable limits for the previous twenty-four (24) month period.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.9]

- viii) Information regarding all instances when the bypass stack was utilized.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.10]

- ix) Total waste throughput by waste type (medical, low-level radioactive, and pathological) for the previous twelve (12) month period.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.11]

- x) The total hours of operation for each month and previous twelve (12) month period.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.12]

- xi) Information regarding any occurrences when waste throughputs or hours of operation exceeded the applicable limits.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.13]

- xii) Total natural gas usage for the six (6) month period being reported.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.14]

- xiii) A list of all incinerator operators that operated the incinerator for the six (6) month period being reported, as well as a copy of each operators certification.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.15]

- xiv) All records of efforts to create an on-going awareness of proper waste management practices among users of WSU incinerator's disposal services as part of the waste management plan that took place during the six (6) month period being reported.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.16]

- xv) The results of any performance testing shall be submitted no later than 60 days following such testing.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.17]

- xvi) Monthly deviation reports shall include any information regarding emergency situations, days for which operating parameter data was not collected, and days for which recorded operating parameter data deviated from applicable limits, as well as any other deviations from permit conditions. These monthly reports shall follow the guidelines in Standard Condition 1.13.1.

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[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 9.18], [WAC 173-401-630(1), 09/16/02], [WAC 173-401-615(1)(b), 09/16/02], [WAC 173-401-630(1), 09/16/02]

21M. The applicable testing methods shall be conducted according to the following frequency guidelines.

- 1) Testing shall be conducted once each twelve (12) months for at least the first three years, thereafter,
- 2) If all performance tests, over a 3-year period, indicate compliance with the respective emission limit, the owner or operator may forego a performance test for that pollutant for the subsequent 2 years.
- 3) At a minimum, performance testing for the applicable pollutant shall be conducted every third year or no more than 36 months following the previous performance test.
- 4) If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 3.1, 3.2, 3.3, 3.5], [40 CFR 60.56c(c)(1), (c)(2), 7/1/02]

22M. The applicable testing methods shall be conducted according to the following conditions.

- 1) Compliance shall be demonstrated by performance testing for the applicable pollutant, using the applicable reference test method(s), once every 36 months.
- 2) If satisfactory performance is proven by the source testing, the frequency of tests may be lengthened if the request is submitted by the permittee in writing followed by approval by Ecology in writing.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 2.8, 3.8, 3.9, 3.10, 3.11, 3.12]

23M. The applicable testing methods shall be conducted according to the following conditions.

- 1) Compliance shall be demonstrated by performance testing for the applicable pollutant, using the applicable reference test method(s), once every 36 months.
- 2) The minimum sample time shall be four (4) hours per test run.
- 3) The testing limits shall be for total dioxins/furans, based on toxic equivalency factors published in Table 2 of 40 CFR 60, Subpart Ec.
- 4) If satisfactory performance is proven by the source testing, the frequency of tests may be lengthened if the request is submitted by the permittee in writing followed by approval by Ecology in writing.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 2.8, 3.4]

24M. The following shall apply regarding the emission limits for specified pollutants. All operating parameters shall be measured as three (3) hour rolling averages, calculated each hour as the average of the previous three (3) operating hours.

- 1) Operation of the facility simultaneously above the maximum charge rate and below either the minimum pressure drop across either wet scrubber or the minimum horsepower or amperage to either scrubber (each measured on a 3-hour rolling average) shall constitute a violation of the PM emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.2], [40 CFR 60.56c(f)(1), 07/01/02]

- 2) Use of the bypass stack (except during startup, shutdown, or malfunction) shall constitute a violation of the PM, Dioxins/Furans, HCl, Pb, Cd and Hg emission limits.

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[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.7], [40 CFR 60.56c(f)(6), 07/01/02]

- 3) Operation of the facility simultaneously above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) shall constitute a violation of the CO emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.3], [40 CFR 60.56c(f)(2), 07/01/02]

- 4) Operation of the facility simultaneously above the maximum charge rate and below the minimum scrubber liquor pH for either scrubber (each measured on a 3-hour rolling average) shall constitute a violation of the HCl emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.5], [40 CFR 60.56c(f)(4), 07/01/02]

- 5) Operation of the facility simultaneously above the maximum charge rate, below the minimum secondary chamber temperature, and below either minimum scrubber liquor flow rate (each measured on a 3-hour rolling average) shall constitute a violation of the Dioxins/Furans emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.4], [40 CFR 60.56c(f)(3), 07/01/02]

- 6) Operation of the facility simultaneously above the maximum flue gas temperature and above the maximum charge rate (each measured on a 3-hour rolling average) shall constitute a violation of the Hg emission limit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 10.1, 10.6], [40 CFR 60.56c(f)(5), 07/01/02]

- 7) Emission limits shall apply at all times except during periods of startup, shutdown, or malfunction, provided that no waste is charge to the affected facility during startup, shutdown, or malfunction.

[40 CFR 60.56c(a), 7/1/02]

25M. The O&M manual(s) for equipment that has the potential to affect emissions associated with the incinerator shall be retained in an up-to-date manner, well organized, and easily accessible for inspection by Ecology personnel. Emissions that result from failure to follow the requirements in the O&M manuals may be considered proof that the equipment was not properly operated, maintained and tested. The O&M manual shall be subject to the following minimum requirements:

- 1) The O&M manual(s) shall include the incinerator's operation and maintenance, as well as the quench section, the packed spray tower, the venturi scrubber, and mist eliminator operation and maintenance.
- 2) The O&M manual shall fully describe all instrumentation for the incinerator and scrubbers.
- 3) The O&M manual(s) for the sensors and instruments used to monitor the operating parameters listed shall incorporate quality control and quality assurance provisions. Manufacturers' instructions may be referenced.
- 4) The O&M manual(s) must include the following:
 - a) Normal operating parameters for the control systems, sensors, and instruments,
 - b) A maintenance schedule for the control systems, sensors, and instruments,

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- c) Monitoring and recordkeeping requirements for the control systems, sensors, and instruments,
- d) A description of the monitoring procedures, for the control systems, sensors, and instruments,
- e) Actions for abnormal control system, sensor, or instrumentation operation, and
- f) Procedures for the proper handling and disposal of incinerator ash.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Conditions 5.4, 6]

26M. The following conditions shall apply to the testing required for the incinerator.

- 1) The permittee shall provide written notification to Ecology of the intent to conduct any performance test, as well as a written test plan that includes a description of the methods(s) proposed at least thirty (30) calendar days prior to the start of any testing

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 2.2, 7.4, 7.5]

- 2) During any periodic performance testing, the incinerator shall:
 - a) Operate at a medical-waste charging rate between 163.6 and 181.8 pounds per hour (3-hour average).
 - b) During separate set of tests, operate at a pathological-waste charging rate between 720 and 800 pounds per hour (3-hour average).

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 2.4]

- 3) Testing for the medical and pathological waste streams shall consist of three separate runs for each waste stream, with a minimum sampling time of one-hour per test run (unless otherwise approved by Ecology).

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 2.5], [40 CFR 60.56c(b)(1), (2), 7/1/02]

- 4) All testing shall be conducted separately for both medical and pathological waste streams, unless:
 - a) alternate or equivalent tests are requested in writing by the permittee and approved by Ecology, or
 - b) specifically allowed by this permit.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 2.6]

- 5) The use of the bypass stack during any performance test shall invalidate that particular performance test.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 2.7], [40 CFR 60.56c(b), 7/1/02]

- 6) In the event that the permittee is unable to conduct any performance test as scheduled, Ecology shall be notified at least 24 hours before the test.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 7.6]

- 7) The permittee may conduct a repeat performance test within thirty (30) days of violation of applicable operating parameter(s) to demonstrate that the facility is not in violation of the applicable emission limit(s). Such a repeat performance test shall be conducted under the identical operating parameters that resulted in an emission violation.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 10.8], [40 CFR 60.56c(h), 07/01/02]

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- 8) WSU may conduct a repeat performance test at any time to establish new values for the operating parameters. Ecology may request a repeat performance test at any time.

[Order No. DE 98AQ-E124, Issued 8/7/98, Approval Condition 10.9], [40 CFR 60.56c(j), 07/01/02]

27M. BACT/T-BACT shall consist of the following. Generally, the permittee proposed the use of a quench section, a caustic solution packed spray tower, a venture scrubber using caustic solution, and mist eliminator to control air pollution emissions from the incinerator. In addition, BACT shall consist of the following with regard to specific pollutants.

- 1) Particulate Matter – The use of good combustion design, proper waste sizing and loading, proper combustion control and effective maintenance to control PM emissions.
- 2) Carbon Monoxide – The use of good combustion design, proper waste sizing and loading, proper combustion control and effective maintenance to control CO emissions.
- 3) Nitrogen Oxides – The use of natural gas as pre-heating and auxiliary fuel.
- 4) Sulfur Dioxide – The use of natural gas as pre-heating and auxiliary fuel.
- 5) Total Organic Carbon – The use of good combustion design, proper waste sizing and loading, proper combustion control and effective maintenance to control TOC emissions.
- 6) Opacity - The use of good combustion design, proper waste sizing and loading, proper combustion control and effective maintenance to limit visible stack emissions.
- 7) Fugitive Dust Emissions
 - a) On-Site Roads – The pavement of roads, chemical treatment of roads with approved binders, or water application to on-site roads as required to minimize fugitive dust.
 - b) Incinerator Ash Handling – Only transferring the ash from the incinerator to sealable, non-combustible, non-melting containers within the enclosed incinerator building, followed by disposal of the ash at an approved site.
- 8) Cooling Tower – The use of a high efficiency (0.005% drift) drift eliminator.

[Order No. DE 98AQ-E124, Issued 8/7/98, Section 3. BACT and Section 4. T-BACT]

ETO STERILIZER – VET TEACHING HOSPITAL

28M. The required testing for the stack emissions from the ethylene oxide sterilizer shall be subject to the following conditions.

- 1) Testing shall be conducted on an annual basis for ethylene oxide emissions. California Air Resources Board (CARB) Method 431 or equivalent testing such as NIOSH Methods 1614 or 3702, or other methods as approved by the Department of Ecology Air Quality section shall be performed. Continuous emission monitoring with a gas chromatograph will satisfy these source testing requirements. Testing shall be conducted on the inlet and outlet of the control device to demonstrate efficiencies and emissions limits during the conditions of maximum ethylene oxide mass flow rates.
- 2) To determine the efficiency of the control device on the sterilizer exhaust stream, sampling during the entire duration of the initial post-sterilization evacuation is acceptable. To determine the efficiency of the control device on the aerator exhaust stream with non-constant flow, sampling shall be done during the first evacuation after aeration begins. If the outlet concentrations of ethylene oxide are

ETO STERILIZER – VET TEACHING HOSPITAL

non-detectable, and a reduction is demonstrated across the control device, the control equipment will be deemed in compliance. There can be no dilution in the ventilation and control system.

[Order No. DE 95AQ-E138, Issued 8/18/95, Approval Condition 6.2]

29M. Testing shall be conducted at least annually for system leaks of ethylene oxide. The testing shall be conducted following one of the following three methods:

- 1) The system shall be tested annually for leaks while on-line, or
- 2) Testing for system leaks shall be conducted continuously at representative points along the equipment, or
- 3) Testing for system leaks shall be as described in the O&M manual.

[Order No. DE 95AQ-E138, Issued 8/18/95, Approval Conditions 6.3]

30M. All recordkeeping with respect to the ethylene oxide sterilizer shall be retained on-site for a period of five (5) years, kept in a readily accessible manner for inspection by Ecology personnel and subject to the following conditions.

- 1) Calculations used in determining ethylene oxide usage shall be performed in the following manner.
 - a) Total weight of gas used shall be determined through purchasing records.
 - b) Due to the fact that the ethylene oxide is diluted in a carrier gas (in the case carbon dioxide), the total weight of gas used during each reporting period shall be multiplied by the ratio of ethylene oxide to total gas.

[WAC 173-401-615(1)(b), 09/16/02]

- 2) Ethylene oxide usage shall be reported semi-annually in accordance with Standard Condition 1.13.2.
- 3) Exceeding the ethylene oxide limit may require that another NOC application be submitted.
- 4) All maintenance records shall be retained.

[Order No. DE 95AQ-E138, Issued 8/18/95, Approval Conditions 1, 5]

31M. Compliance with the temperature requirement shall be demonstrated by the following:

- 1) Continuous temperature monitoring system chart recorder readings shall be kept in a readable manner and be readily accessible for Ecology upon request.

[WAC 173-401-615(1), 09/16/02]

- 2) The temperature monitoring system shall be maintained in accordance with the O&M manual.

[Order No. DE 95AQ-E138, Issued 8/18/95, Approval Condition 7.2]

32M. In the event that any equipment is operated without the catalytic combustion unit operable, while any equipment is leaking, without the emission control monitors operational, or without the interlocks as stated in the NOC application (due to an emergency), the permittee shall perform recordkeeping and reporting in a manner consistent with the guidelines included in Standard Condition 1.11 Excess Emissions Due to an Emergency.

[Order No. DE 95AQ-E138, Issued 8/18/95, Approval Condition 7.5], [WAC 173-401-630(1), 09/16/02]

33M. The O&M manual for the ethylene oxide sterilizer located in the Veterinary Teaching Hospital shall be retained in an up-to-date manner, well organized, and easily accessible for inspection by Ecology

ETO STERILIZER – VET TEACHING HOSPITAL

personnel. Emissions that result from failure to follow the requirements in the O&M manuals may be considered proof that the equipment was not properly operated, maintained and tested. The O&M manual shall at a minimum include the following information.

- 1) Normal operating parameters for the control systems.
- 2) A maintenance schedule for the control systems.
- 3) Monitoring and record keeping requirements.
- 4) A description of the monitoring procedures.
- 5) Actions for abnormal control system operation.

[Order No. DE 95AQ-E138, Issued 8/18/95, Approval Condition 5]

SEED PROCESSING FACILITY

34M. The following conditions shall apply to the monitoring, recordkeeping, and reporting required for the seed processing facility.

- 1) Monitoring
 - a) EPA RM 9 for visible emissions on the debearder cyclone shall be performed once each calendar month that the debearder process is operated. The permittee shall perform the testing while the debearder process is in operation and during the stage of the process that has the greatest potential to produce visible emissions.
 - b) Visible emission monitoring as described by **4M** shall apply to all potential points of particulate matter emissions at the seed processing facility except for the debearding process. The permittee shall perform the observations while the associated processes are in operation and during the stage of the process that has the greatest potential to produce visible emissions.
- 2) Recordkeeping
 - a) The permittee shall maintain all original RM 9 test forms and visible emission monitoring forms (as required by **4M**) for a period of five (5) years. All forms shall be kept in a readily accessible manner for inspection by Ecology personnel.
- 3) Reporting
 - 1) In the event that any RM 9 test documents a deviation above the 20% opacity limit, the permittee shall report the details of the deviation as required under Standard Condition 1.13.1. The following minimum information shall be included in the monthly deviation report.
 - i) The date, time, and approximate duration of the deviation.
 - ii) The magnitude of the deviation.
 - iii) An estimate of excess emissions.
 - iv) The probable cause of the deviation.
 - v) Any corrective action taken or planned and the results of such action.

[WAC 173-401-615(1)(b), 09/16/02]

COMPOST FACILITY

- 35M.** At least once per month, as well as any time visible emissions/fugitive dust are observed, the permittee shall perform brief, walk-around surveys for the purpose of determining the presence of visible emissions/fugitive dust crossing the facility site boundary. The surveys shall be conducted while the facility is in operation, and shall include observation for any visible emissions, including fugitive emissions, regardless of the source. In the event that visible emissions are observed, the permittee shall perform RM 9 on the source of the emissions.

Recordkeeping shall include information for each survey indicating the date the survey was performed, the name of the person performing the survey, the weather at the time of the survey, an indication of whether any visible emissions/fugitive dust were observed to cross the property boundary, and the original RM 9 form for any tests performed.

Reporting shall consist of monthly reporting of deviations as described in Standard Condition 1.13.1, as well as annual certification of compliance as described in Standard Condition 1.13.3. Any monthly deviation reports documenting visible emissions observed to cross the property boundary shall include the time, date and duration of the deviation, a description of the cause of the visible emissions, the corrective action taken, and the results of the corrective action.

[WAC 173-401-615(1)(b), 09/16/02]

- 36M.** Odor evaluation shall be performed daily as described in the most current version of the WSU Compost Facility Operating Procedures. In addition, the permittee shall evaluate whether odors are detectable at the facility boundary. If unreasonable odors are present or continued complaints received, Ecology will order the permittee to take specific measures to control odors. These measures may include installation of additional pollution control devices.

Recordkeeping shall include information documenting that the odor evaluation took place each day, the name of the person performing the survey and an indication of whether any offensive and/or abnormal odors were detectable.

Reporting shall consist of monthly reporting of deviations as described in Standard Condition 1.13.1, as well as annual certification of compliance as described in Standard Condition 1.13.3. Any monthly deviation reports documenting odors detected shall include the time, date and duration of the deviation, a description of the cause of the odors, the corrective action taken, and the results of the corrective action.

In addition, the permittee shall submit to Ecology on an annual basis the most current Compost Facility Operating Procedures and the Whitman County Dept. of Public Health permit. The new versions of these documents shall be submitted no later than thirty (30) days following the date on which they are either modified or issued.

[Order No. DE 95AQ-E148, Issued 07/27/95, Approval Condition 2.1], [WAC 173-401-615(1)(b), 09/16/02]

- 37M.** The O&M manual for the Compost Facility shall be retained in an up-to-date manner, well organized, and easily accessible for inspection by Ecology personnel. Emissions that result from failure to follow the requirements in the O&M manuals may be considered proof that the equipment was not properly operated, maintained and tested. The O&M manual shall at a minimum include the most current Whitman County Dept. of Public Health permit and WSU Compost Facility Operating Procedures.

[Order No. DE 95AQ-E148, Issued 07/27/95, Approval Condition 3]

4. Compliance Schedule

[WAC 173-401-630(3)]

As of the time of permit issuance, the following requirements have been identified with which the permittee is not currently in compliance. This compliance schedule establishes the deadlines as specified by which the permittee must come in to compliance with each requirement listed.

Requirement Reference

Order No. 01AQER-3336, Condition 2.1 (Initial source testing of natural gas fired boilers #1 and #2)
40 CFR 60.8(a)..... (Initial source testing of natural gas fired boilers #1 and #2)

Compliance Milestone

Deadline

Demolition and removal of existing distributed control system (DCS)	May 3, 2004
Installation of new DCS.....	May 6, 2004
Commissioning and startup of new DCS.....	May 13, 2004
Startup of boilers #1 and #2	May 24, 2004
Boilers #1 and #2 fully on-line	June 11, 2004

Initial performance testing on boilers #1 and #2 shall be conducted **as soon as possible**, but not later than November 15, 2004.

The permittee shall provide Ecology with written confirmation that each of the above goals are met. The permittee shall promptly notify Ecology if unforeseen delays are encountered.

5. Radioactive Air Emissions License – Washington State Department of Health

RADIOACTIVE AIR EMISSIONS LICENSE

For

Washington State University

Issued by

The State of Washington Department of Health

Division of Radiation Protection

Air Emissions and Defense Waste Section

**License Number:
FF-004**

Pursuant to the Nuclear Energy and Radiation Control Act, RCW 70.98 the State Clean Air Act, RCW 70.94 and the Radioactive Air Emissions Regulations, Chapters 246-247 WAC, and in reliance on statements and representations heretofore made by the Licensee designated below, a license is hereby issued authorizing such licensee to vent radionuclides from the various campus buildings and laboratories identified in this license. The State of Washington Department of Health promulgates this license subject to all applicable rules and regulations. This License does not relieve the Licensee of compliance with the NRC License or other State or Federal agencies jurisdiction pertaining to hazardous air pollutants.

Licensee

Washington State University

Pullman, Washington

Issue Date: February 28, 2003

Effective Date: March 1, 2003

Expiration Date: August 1, 2007

DATED at Olympia, Washington the 26th day of February, 2003

Approved By:

Head, Air Emissions and Defense Waste Section

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1 EMISSION STANDARDS

The emission of radionuclides to the ambient air from the Washington State University shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem per year. **[WAC 246-247-040(1), 4/4/1994]**

It is allowed that a 3 mrem per year effective dose equivalent from emission of iodine to the maximally exposed individual be used in lieu of an annual possession quantity.
[WAC 246-247-040(5), 4/4/1994]

All existing emission units and nonsignificant modifications shall utilize ALARACT.
[WAC 246-247-040(4), 4/4/1994]

All new construction and significant modifications of emission units commenced after August 10, 1988 shall utilize BARCT.
[WAC 246-247-040(3), 4/4/1994]

2 APPLICABLE REQUIREMENT TERMS

A Notice of Construction (NOC) is written information submitted under WAC 246-247-060(1) and (2), and provides information listed in WAC 246-247-110 "Appendix A - Application information requirements." This information must include the total effective dose equivalent (TEDE). The equivalent dose is calculated using the source term derived from the COMPLY CODE, or other EPA, or State of Washington, Department of Health (Health) approved method. A Notice of Construction as detailed below is required for proposed construction or modification of an emission unit. An approved NOC with its limits and conditions becomes an applicable requirement to the license.

WAC 246-247-060(1), 4/4/94 requirements for new construction or modification of emission units are as follows:

Early in the design phase, the applicant shall submit a NOC containing the information required in Appendix A of WAC 246-247.

Within thirty days of receipt of the NOC, Health shall inform the applicant if additional information is required. The department may determine, on the basis of the information submitted, that the requirements of BARCT or ALARACT have been met, or may require the applicant to submit a BARCT or ALARACT demonstration compatible with Appendix B or C of WAC 246-247, respectively.

Within sixty days of receipt of all required information, Health shall issue an approval or denial to construct. The department may require changes to the final proposed control technology.

The applicant may request a phased approval process by so stating and submitting a limited application. Health may grant a conditional approval to construct for such activities as would not preclude the construction or installation of any control or monitoring equipment required after review of the completed application.

Health shall issue a license, or amend an existing license, authorizing operation of the emission unit(s) when the proposed new construction or modification is complete. For facilities subject to the air operating permit requirements of chapter 173-401, the license shall become part of the air operating permit issued by the Department of Ecology or a local air pollution control authority. For new construction, this action shall constitute registration of the emission unit(s).

WAC 246-247-060(2), 4/4/94 requirements for modification of unregistered emission units that are not exempt from the regulations are as follows:

The applicant shall submit an application containing the information required in Appendix A of WAC 246-247.

Within thirty days of receipt of the application, Health shall inform the applicant if additional information is required. The department may determine, on the basis of the information submitted, that the requirements of BARCT or ALARACT have been met, or may require the applicant to submit a BARCT or ALARACT demonstration compatible with Appendix B or C of WAC 246-247, respectively.

Within sixty days of receipt of all required information, Health shall issue or amend the license. For facilities subject to the air operating permit requirements of Chapter 173-401, the license shall become part of the air operating permit issued by the Department of Ecology or a local air pollution control authority. This action shall constitute registration of the emission unit(s). A determination of non-compliance may result in the issuance of a Notice of Violation.

Health reserves the right to require the owner of an existing, unregistered emission unit to make modifications necessary to comply with the applicable standards of WAC 246-247-040.

The university shall notify the Department of Health at least seven calendar days before any planned pre-operational tests of new or modified emission units that involve emissions control, monitoring, or containment systems of the emission unit(s). The department reserves the right to witness these tests under WAC 246-247-060 (4).

The ALARACT requirement means the use of radionuclide emission control technology that achieves emission levels that are consistent with ALARA. ALARACT compliance is demonstrated by evaluating the existing control system and proposed nonsignificant modification in relation to applicable technology standards and other control technologies operated successfully in similar applications. An ALARACT compliance demonstration is used for inspection or audit purposes, and to demonstrate compliance with the substantive ALARACT technology standard. [WAC 246-247- 030(4), 4/4/1994] [WAC 246-247-130(Appendix C), 4/4/1994]

3 MONITORING, TESTING, COMPLIANCE ASSURANCE

Unless otherwise noted, monitoring, testing and quality assurance must be performed under the requirements of **WAC 246-247-075, 4/4/1994.**

Annual compliance to the standard shall be determined through COMPLY, or through Appendix E to CFR Part 61 – Compliance Procedures Methods for Determining Compliance with Subpart I. [WAC 246-247-085(2), 4/4/94]

In lieu of periodic testing or instrumental monitoring, the Licensee shall be limited by the annual possession quantity specified for each emission unit in Section 5 of this License. Monitoring will consist of recordkeeping designed to serve as monitoring for the relevant time period associated with the annual possession quantities listed in Section 5. [WAC 173-401-615(1)(b), 11/4/93] [WAC 246-247-040(5), 4/4/94].

In the case of a permanent shut down of the emission unit:

- i) The Licensee completes the monitoring and associated recordkeeping for that period prior to the shutdown;
- ii) The Licensee files a report of closure with the Department of Health in accordance with WAC 246-247-080(6). An emission unit will not be considered to be permanently shut down or completed until a report of closure is received by the Department of Health.

4 INSPECTIONS, RECORD KEEPING AND REPORTING

Inspections, reporting and record keeping must be performed under the requirements of **WAC 246-247-080, 4/4/1994**.

Record keeping designed to serve as monitoring must include information sufficient to assure radionuclides limits are at, or lower than, those specified by the annual possession quantity limits of Section 5. Records must be kept to establish there were no emissions for any emission unit, if the emission unit did not operate at any time during the calendar year.

A notification must be made to the department within 24 hours if any of the following conditions are met:

- Any shutdown lasting more than four hours;
- Any abnormal condition lasting more than four hours;
- Any of the above conditions or change in facility operations that, if allowed to persist, would result in emissions that would exceed the any emission standard of section 2 or any specified emission limit in section 5 of this license.

The Washington State University shall submit an annual report covering the emissions from the previous calendar year's operation. This report shall be submitted no later than July 31 of the following year. This is a change to the reporting period and is granted as a deviation to WAC 246-247-080(3) since the Nuclear Regulatory Commission (NRC) similarly regulates the Nuclear Radiation Center. Justification for this deviation is found in 246-247-020(2)(e), "minimizing dual regulation with the NRC".

A projected annual effective dose equivalent to the Maximally Exposed Individual (MEI) greater than 3 mrem per year shall be reported to the Department within 24 hours.

The Department reserves the right to perform a radionuclide air emissions audit of the facility annually or as deemed necessary. Inspections shall be performed at the Department's discretion.

5 EMISSION UNIT SPECIFIC LICENSE CONDITIONS

Requirements for minor point sources

ADBF

Washington State University
 Emission Unit ID: 655

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Animal Disease Biotechnology Facility

NOC_ID

519

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides Curies/year):

C 14	8.05E-03	Cr 51	9.00E-03	H 3	7.20E-02
I 125	1.00E-02	P 32	1.63E-02	S 35	2.25E-02

ASII

Washington State University
Emission Unit ID: 656

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Animal Sciences II Facility

NOC_ID

520

Emission Unit Operational Conditions (state only enforceable)

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 **This process is limited to:**

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 **The Annual Possession Quantity is limited to the following radionuclides Curies/year):**

C 14	4.95E-03	Cr 51	3.30E-02	H 3	8.08E-02
I 125	2.61E-01	P 32	6.00E-03	P 33	1.00E-03
S 35	2.70E-02				

Bustad

Washington State University
Emission Unit ID: 657

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Bustad Hall

NOC_ID

521

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

C 14	1.85E-02	Cr 51	1.95E-01	H 3	1.87E-01
I 125	9.89E-02	P 32	8.15E-02	P 33	2.00E-03
S 35	1.42E-01				

Clark

Washington State University
Emission Unit ID: 658

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Clark Hall

NOC_ID

522

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

C 14	9.41E-02	H 3	3.63E+00	I 125	3.80E-02
Na 22	1.00E-02	P 32	1.49E-01	P 33	2.58E-02
S 35	1.93E-01				

CNS

Washington State University
Emission Unit ID: 659

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Center for Neurological Sciences

NOC_ID

523

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

H 3	4.00E-03	I 125	5.15E-05	P 32	3.00E-03
S 35	5.00E-03				

Dana

Washington State University
Emission Unit ID: 660

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Dana Hall

NOC_ID

524

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

C 14	1.50E-02	P 32	5.00E-04	Tc 99	7.80E-02
U 238	3.00E-06				

Eastlick

Washington State University
Emission Unit ID: 661

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Eastlick Hall

NOC_ID

525

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

C 14	2.10E-02	H 3	2.00E-02	I 125	4.00E-04
P 32	5.50E-03	S 35	1.60E-02		

FSHN

Washington State University
Emission Unit ID: 665

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Food Science/Human Nutrition Facility

NOC_ID

529

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

C 14	1.60E-02	Co 57	2.00E-06	H 3	2.60E-02
I 125	1.12E-04	P 32	1.23E-02	P 33	1.03E-02
S 35	6.00E-03				

Fulmer

Washington State University
Emission Unit ID: 666

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Fulmer Hall

NOC_ID

530

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

Ba 133	1.11E-07	C 14	7.90E-02	Cr 51	3.20E-04
Fe 55	2.50E-02	Fe 59	2.00E-06	H 3	2.76E-01
I 125	1.00E-02	P 32	1.17E-01	P 33	2.70E-02
S 35	1.65E-01	Sr 90	1.50E-08		

Heald

Washington State University
Emission Unit ID: 667

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Heald Hall

NOC_ID

531

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

C 14	6.72E-02	Ca 45	2.00E-03	Cl 36	5.50E-03
Cr 51	1.00E-02	H 3	1.10E-01	I 125	1.00E-04
K 42	7.00E-03	Na 22	7.50E-03	Na 24	7.00E-03
P 32	7.48E-02	P 33	1.13E-02	S 35	4.65E-02

Incinerator

Washington State University
Emission Unit ID: 669

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Incinerator

NOC_ID

533

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

C 14	8.43E-04	Co 57	1.86E-04	Co 60	1.20E-06
Cr 51	1.00E-06	Fe 55	3.00E-04	H 3	2.37E-03
I 125	4.60E-04	I 131	7.00E-08	Na 22	1.00E-05
P 32	3.00E-05	P 33	2.00E-06	S 35	2.64E-03

Johnson

Washington State University
Emission Unit ID: 670

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Johnson Hall

NOC_ID

534

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

C 14	8.80E-02	Ca 45	1.20E-02	H 3	9.00E-02
P 32	1.99E-01	P 33	9.00E-03	S 35	7.80E-02

McCoy

Washington State University
Emission Unit ID: 671

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the McCoy Hall

NOC_ID

535

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

H 3	5.00E-03	I 125	1.00E-02	P 32	1.00E-02
P 33	1.13E-02	S 35	1.00E-02		

NRC

Washington State University
Emission Unit ID: 672

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Nuclear Radiation Center

NOC_ID

536

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

Am 241	5.20E-06	Am 244	3.00E-08	Cs 137	4.40E-06
Eu 154	1.04E-05	Eu 155	3.40E-06	H 3	1.00E-03
I 125	1.60E-04	Pb 210	1.50E-08	Pu 239	1.20E-07
Ra 226	1.90E-08	U 235	2.00E-10		

Reactor (NRC)

Washington State University
Emission Unit ID: 681

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Reactor (NRC)

NOC_ID

545

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

Ar 41	2.00E+01
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Science

Washington State University
Emission Unit ID: 674

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Science Hall

NOC_ID

538

Emission Unit Operational Conditions (state only enforceable))

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

Br 82	1.00E-02	C 14	3.74E-02	Ca 45	1.20E-02
Cl 36	5.00E-03	Co 57	1.00E-03	Fe 55	6.00E-03
H 3	1.06E-01	I 125	1.00E-02	K 42	5.00E-03
Na 22	5.00E-03	Na 24	5.00E-03	P 32	1.39E-01
P 33	2.10E-02	S 35	1.82E-01		

Troy

Washington State University
Emission Unit ID: 677

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Troy Hall

NOC_ID

541

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

C 14	2.00E-02	H 3	1.50E-02	Ni 63	4.00E-01
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VTH

Washington State University
Emission Unit ID: 679

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Veterinary Teaching Hospital

NOC_ID

543

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

Co 60	1.00E-05	I 131	2.60E-01	Tc 99 m	2.24E+01
Y 90	9.00E-03				

Webster

Washington State University
Emission Unit ID: 680

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Webster Hall

NOC_ID

544

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

Ba 133	1.00E-03	Co 60	1.00E-03	Cs 137	1.00E-03
Hf 181	1.00E-02	In 111	3.80E-02	In 114 m	2.00E-04
Na 22	2.03E-03	Sb 124	2.25E-04	Th 229	6.04E-07
Th 230	6.00E-07	U 233	6.01E-06	U 235	6.50E-11

Wegner

Washington State University
Emission Unit ID: 678

Abatement Technology (state only enforceable): NONE

Monitoring Requirements (state and federally enforceable)

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
	[WAC 246-247-040(5)] [WAC 173-401-615(1)]	[WAC 173-401-615(1)]	[WAC 246-247-075(1)] [WAC 173-401-615(1)]
	In lieu of monitoring emissions will be limited by the inventory track by annual possession	Not required.	None

Project Title

Research Performed at the Wegner Hall

NOC_ID

542

Emission Unit Operational Conditions (state only enforceable)

1 Washington State University shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2 This process is limited to:

the use of research applications in the basic physical and biological sciences as well as in multitudinous applied sciences. The overall research program is one of extraordinary complexity. At any given time some 145 facility and staff members are Authorized Users of Radioactive Materials, approved by the Radiation Safety Committee under the provisions of WAC 246 and the WSU Radioactive Materials License, and a total of about 1100 persons qualify as radiation workers. Protocols almost invariably involve the use of low activity levels of radionuclides, and most of the work done with radioactive materials features the familiar, widely used radionuclides such as H-3, C-14, P-32, P-33, S-35 and I-125.

3 The Annual Possession Quantity is limited to the following radionuclides (Curies/year):

C 14	1.30E-01	Cr 51	8.10E-02	H 3	5.95E-01
I 125	5.84E-01	P 32	1.15E-01	P 33	2.13E-02
S 35	8.05E-02				

Standard operational conditions and limits

The following additional standard conditions apply to each emission units at WSU identified in Section 5 “Requirement of Minor Point Sources” of this License:

- 1) These Conditions and Limitations must be documented in an established procedure prior to starting activities granted by this approval (WAC 246-247-040(5) and 246-247-060(5)).
- 2) If this emission unit is not in compliance with the standards in WAC 246-247-040 during construction or operation, the department reserves the right to require modifications to bring it into compliance (WAC 246-247-060-(2)(d)).
- 3) The facility shall notify the department seven days in advance of any planned pre-operational testing of the emission unit's control, monitoring or containment systems. The department reserves the right to observe such tests (WAC 246-247-060(4)).
- 4) The facility must be able to demonstrate that it has a quality assurance program compatible with applicable national standards (WAC 246-247-075(6)).
- 5) The department retains the right to conduct stack sampling, environmental monitoring or other testing around this unit to assure compliance. If directed by the department, the facility must make provision for such testing (WAC 246-247-075(9) and (10)).
- 6) The facility must be able to demonstrate workers associated with this emission unit are trained in the use and maintenance of control and monitoring systems, and in the performance of associated tests and emergency procedures (WAC 246-247-075(12)).
- 7) The facility must be able to demonstrate the reliability and accuracy of emissions data and other test results from this emission unit (WAC 246-247-075(13)).
- 8) The Department reserves the right to inspect and audit all construction activities, equipment, operations, documents, data and other records related to compliance with the requirements of this chapter (WAC 246-247-080(1)).
- 9) The department may require an ALARACT demonstration at any time (WAC 246-247-080(1)).
- 10) The facility must meet all reporting and record keeping requirements of 40 CFR 61, Subpart I. (WAC 246-247-080(2)).
- 11) The facility shall report all measured or calculated emissions annually (WAC 246-247-080(3)).
- 12) The facility shall report to the department within 24 hours, any unexpected release of radioactivity, shutdown or other condition that, if allowed to persist, or lasts more than four hours, would result in the emission of radionuclides in excess of any standards or limitation in the license. Applicable standards (WAC 246-247-040) include unit specific emission limits (paragraph 5), the offsite dose standard (paragraph 1), BARCT (paragraph 3) or ALARACT (paragraph 4), whichever is applicable, or any limitation included in this approval (paragraph 5) (WAC 246-247-080(5)).
- 13) Prior to permanent shut down of an emission unit or completion of an activity, the permittee shall file a report of closure with the Department of Health. The report of closure shall include the date of the shutdown and indicate whether, despite cessation of operation, there is still a potential for radioactive air emissions and a need for any active or passive ventilation system with emission control and/or monitoring devices. An emission unit or activity will not be considered permanently shut down or completed until a report of closure is received and approved by Health.

- 14) The facility shall maintain readily (promptly) retrievable storage areas (on site) for all records and documents related to, and which may help establish compliance with, the requirements of this chapter. The facility shall keep these records available for department inspection for at least five years (WAC 246-247-080(8)).
- 15) The facility shall ensure all emissions units are fully accessible to department inspectors. In the event the hazards associated with accessibility to a unit require training and/or restriction or requirements for entry, the facility owner or operator shall inform the department, prior to arrival, of those restrictions or requirements. The owner or operator shall be responsible for providing the necessary training, escorts, and support services to allow the department to inspect the facility. At a minimum for unannounced inspections, such requirements or restrictions must be told to inspectors to provide an opportunity for inspectors to meet those requirements prior to the inspection (WAC 246-247-080(9)).
- 16) The facility shall make available, in timely manner, all documents requested by the department for review. The facility shall allow the department to review documents in advance of an inspection. The facility shall allow the department to review documents in advance of an inspection. The facility shall allow access to classified documents by representatives of the department with the appropriate security clearance and a demonstrable need-to-know (WAC 246-247-080(10)) the facility shall allow access to classified documents by representatives of the department with the appropriate security clearance and a demonstrable need-to-know (WAC 246-247-080(10)).